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AUTHOR	Pan, Diane; Rudo, Zena H.; Schneider, Cynthia L.; Smith-Hansen, Lotte
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ABSTRACT

This document reports on a study on the relationship between resources and student performance. The study examined district-level patterns of resource allocation, district and school resource practices implemented to improve student performance, and barriers and challenges to efficient resource allocation faced by districts and schools. The study took place in independent school districts in Arkansas, Texas, New Mexico, and Louisiana. Data for the study were collected from national, state, and local fiscal, staffing, and demographic records and information; interviews with superintendents, directors of instruction, chief financial officers, personnel directors, principals, and other district staff; focus groups composed of administrators; and teacher surveys. Both qualitative and quantitative data were analyzed using various methods, including multivariate models, ANOVAs, and regression analysis. The findings from the research demonstrated a strong relationship between resources and student success. The results indicated that allocating resources within select areas and for certain practices might make a significant impact on student performance. Both the level of resources and their explicit allocation seemed to affect educational outcomes. Four appendices detail the variables used in the data analyses, data-collection protocols and procedures, analyses of the data, and tables showing fiscal and staffing data. (WFA)

Examination of Resource Allocation in Education: Connecting Spending to Student Performance

RESEARCH REPORT

SEDL
Southwest Educational Development Laboratory

Southwest Educational Development Laboratory
211 E. 7th St.
Austin, TX 78701-3281
512-476-6861

EXAMINATION OF RESOURCE ALLOCATION IN EDUCATION: CONNECTING SPENDING TO STUDENT PERFORMANCE

Research Report
April 2003

Diane Pan
Zena H. Rudo, Ph.D.
Cynthia L. Schneider, Ph.D.
Lotte Smith-Hansen

Southwest Educational Development Laboratory
211 East Seventh Street
Austin, Texas 78701
www.sedl.org

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Acknowledgments

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The Southwest Educational Development Laboratory (SEDL) is working to provide new knowledge to policymakers that will support the transformation of low-performing schools and districts into high performing learning communities. To this end, SEDL conducted a research study beginning in January 2001 that investigated the relationship between resource allocation and student performance. This study, funded as part of SEDL Regional Education Laboratory contract with the U.S. Department of Education, helps fill a gap in the current research base and contributes to reform efforts in the field of education.

Executive Summary

School finance issues are of paramount concern to all levels of the education system – national, state, district, and school. Indeed, every child's future, as well as the future of a society in general, depends largely on the quality of the educational system. As expectations rise for students and teachers to perform at higher levels, and for schools to guarantee the success of all students, the question of how best to support this reform through the effective and efficient allocation of resources becomes even more critical. Research efforts in recent decades have helped broaden our understanding of the role of school resources in student outcomes and how their distribution and use might be improved. However, the relationship between resources and student performance is still not clear.

SEDL's study examined district level patterns of resource allocation, district and school resource practices implemented to improve student performance, and barriers and challenges faced by districts and schools to efficient resource allocation. SEDL researchers examined data on student performance as well as fiscal and human resource allocation from all independent school districts within each of four study states, Arkansas, Louisiana, New Mexico, and Texas. SEDL also selected 12 improvement school districts from the larger sample that showed

consistent gains in student performance to more closely examine the resource allocation patterns and practices of successful school districts.

The findings from the research demonstrated a strong relationship between resources and student success. Furthermore, the results indicated that allocating resources within select areas and for certain practices might make a significant impact on student performance. In short, both the level of resources and their explicit allocation seem to affect educational outcomes. Specifically, this study found that:

- High-performing districts showed different resource allocation patterns in specific fiscal and staffing categories than low-performing districts. A general pattern emerged where higher performance was associated with higher spending for instruction, core expenditures, and number of teachers and with lower spending for general administration and number of administrative staff. In all four states, high-performing districts spent more on instruction as a share of current expenditures, while in three states high-performing districts spent more on instruction per pupil and employed more teachers per 1,000 students. The differences in resource allocation between the low-performing and high-performing groups were reduced in two of the four states when the comparisons controlled for demographic factors and socioeconomic status.
- Improvement districts showed different resource allocation patterns in specific fiscal and staffing categories than districts of similar size. A majority of the twelve improvement districts spent more per pupil in instruction and instruction-related areas, and also increased allocations for these areas faster than comparison districts over the five-year period examined. At the same time, the twelve districts were found to re-allocate resources away from administrative and other non-instructional areas.

- Improvement districts and high-performing districts showed similar patterns in the allocation of fiscal and non-fiscal resources.
- Improvement districts used a range of effective reform practices to address student performance at the school and/or district levels. Interviews with school and district administrators and teacher surveys revealed that the districts able to align general reform efforts with creative and effective application and allocation of monetary, staff, time, physical, and parent/community resources, demonstrated how resources support student performance. These effective resource allocation strategies, however, were implemented less systematically than general reform efforts. The planning that went into general reform efforts was not evident for resource allocation efforts. Administrators infrequently mentioned the use of data and evaluation, resource needs-assessment, or cost-benefit or other analyses to plan budgets and staff allocation.
- Resource allocation in improvement districts involves a trade-off process in which funds, time, staff, and other resources are divided among competing needs, often creating inequities. The analysis of barriers and challenges identified by teachers and administrators clearly indicated that a number of allocation challenges were seen as resolvable, such as inflexibility of categorical funds or the need to build staff capacity. Other barriers and challenges, however, remained unresolved and negatively impacted the ability of districts to effectively allocate resources to support performance goals. These included unexpected fluctuations in fund sources, inability to raise salaries, increased time demands on staff, and unsupported state and federal mandates.

Major findings from this research indicate that states, districts, and schools need to consider the allocation and application of fiscal and non-fiscal resources as an integral part of the

education reform process. Successfully doing this will enhance and support student performance gains. The research provides important lessons for state and local policymakers as to how they can and should connect the allocation of educational resources and student performance goals.

What Should State Decision Makers Do?

- States should investigate whether adequate funds are available to schools to support instructional goals. If shortages exist, district and state policymakers need to work together to determine how to increase spending in priority areas and whether reallocation of existing resources is a viable option.
- States need to provide guidance to districts in ways that best support staff through strategies such as building capacity in all staff, prioritizing resources towards professional development, realigning staffing structures to accommodate the strengths and weaknesses of existing staff, and finding ways to recruit and retain quality staff through compensation and support systems.
- States should support the collection of timely and detailed fiscal and performance data and should train local decision makers in the use of data for tracking spending and analyzing the effectiveness of spending. Data on resources should be tied directly to specific educational programs, staffing configurations, and other improvement strategies so that cost-benefit and other analyses can be conducted.
- States should provide training and guidance so that poor performing schools and districts are able to (1) use student performance data to identify needs and priorities, (2) examine research-based information in order to identify the strategies and practices that would best address their needs, (3) communicate the goals and strategies in their improvement plan to all stakeholders, and (4) evaluate the effectiveness of reform strategies and modify both

strategies and resources that support them if needed. These strategies will help to ensure that implementing an improvement planning process is critical to successful resource allocation.

- States should provide timely and accurate fiscal and performance data, integrate resource allocation in the school/district improvement planning process, give districts advance notice of important changes in requirements or policies, ensure that required programs and services are appropriately funded, and assist districts in providing appropriate compensation and adequate planning time to teachers. In these ways, state policymakers can help districts overcome the barriers they face in allocating resources to support student performance.

What Should Local Decision Makers Do?

- Districts should integrate a resource allocation strategy that is based on identified needs. School and student needs should be established using input or collaboration from parents, teachers, and administrators who have access to achievement data. Once clear goals and objectives for student success are identified, they must be clearly communicated so that appropriate district resources can be allocated to support them at the classroom, school, and district levels .
- Districts should ensure that administrative staff develop financial management skills or use the services of accountants or financial analysts so they can better understand the limits and flexibility of fund sources, examine information on spending patterns, determine whether spending supports district priorities, and reallocate funds as needs arise from year to year or within a school year.
- Districts should develop grant-writing skills within their staff. However, districts should also investigate the limits of potential grant sources before committing the time resources

necessary for application and understand which funds will most directly support their goals and priorities.

- Districts must realize that one size does not fit all with respect to approaches to effective resource allocation. District decision makers should consider the specific circumstances of students, schools, and the district as a whole in planning an approach to allocating resources.
- Districts should support school level efforts to build parent and community support and develop district-wide programs that encourage the participation of these outside resources. District leaders can also play an important role in increasing public support by effectively communicating the district's goals and accomplishments, establishing district linkages to the local business community, and partnering with local initiatives and agencies that serve the needs of children and families.
- Districts should find opportunities to interact with their peers to communicate successful resource allocation practices or seek guidance on barriers or challenges they face. States can also support this effort by providing mechanisms for districts to share information and practices and states should identify and consider practices in other states within their region or nationally.

The research findings and implications confirm that there is a relationship between resource allocation and student performance. The findings are important for education decision makers at all levels, emphasizing that wise use of resources not only makes financial sense but also has implications for student success. Policymakers should consider SEDL's recommendations in future efforts to reform education to support student performance improvement. Further, it is evident there is a need for additional investigation to increase our

understanding about the components, limitations, and impacts of integrating systematic resource allocation into a school reform process to help ensure high levels of success for all students.

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EXAMINATION OF RESOURCE ALLOCATION IN EDUCATION: CONNECTING SPENDING TO STUDENT PERFORMANCE

I. Introduction

The Southwest Educational Development Laboratory (SEDL) is conducting research to help inform policymakers about key issues in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas as part of its Regional Educational Laboratory work. This study represents the first of a series of three regional SEDL policy research studies. The current study examined fiscal and non-fiscal resource allocation in relation to student performance.

National data indicate the significance of federal and state dollars as a percentage of total education funding. On average, public elementary and secondary schools receive almost half of their revenues from state sources, while local and federal funds comprise smaller portions of total dollars (U.S. Department of Education, 2000). The fiscal spending pattern in SEDL's five-state region is consistent with this national trend. As shown in Table 1.1, per-pupil expenditures in SEDL's region in 1997 ranged from a high of $5,910 in Texas to a low of $4,964 in New Mexico, with state and federal funds comprising more than half of each state's funding. The local fund share in the five states, except Texas (45.8 percent), was well below the national average, i.e., from 12.3 percent in New Mexico to 35.9 percent in Louisiana compared to 42.3 percent nationally. Federal funds are particularly important to states in SEDL's region, with every state receiving more than the national average share of total expenditures. The concentration of poor children in the region largely drives that statistic.

Table 1.1

Per-Pupil Expenditures and Revenue Shares for Five-State Region and Nation, 1997-1998

	Arkansas	Louisiana	New Mexico	Oklahoma	Texas	National average
Per-pupil expenditures	$4,999	$5,645	$4,964	$5,389	$5,910	$6,662
State share	57.7%	50.4%	72.2%	61.6%	44.2%	48.4%
Federal share	10.8%	11.3%	13.2%	8.6%	7.6%	6.8%
Local share	26.0%	35.9%	12.3%	24.5%	45.8%	42.3%

Note. The data are from NCES Digest of Education Statistics 2000. [Tables 159 and 168]. (April, 2001). Washington, DC: National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement. http://nces.ed.gov/pubs2001/digest. The combination of state, federal, and local revenue shares does not equal 100 percent, as total revenues include private contributions which are not presented.

Problem Statement

Based on discussions with the chief state school officers and other policymakers in SEDL's region, school finance was selected as an area in which research-based information is needed. School finance issues are of paramount concern to all levels of the education system — national, state, district, and school. As expectations rise for students and teachers to perform at higher levels and for schools to guarantee the success of all students, the question of how best to achieve these goals through effective resource allocation becomes even more critical. State policies and dollars support school funding and greatly affect school and district spending practices. Statewide finance systems, in conjunction with reform efforts, can be used to direct resources to support student performance.

Nationally, per-pupil education expenditures demonstrated consistent and rapid growth between 1960 and 1990 (Odden & Busch, 1998; Picus & Fazal, 1995). Attention in the school finance policy arena focused heavily on equity issues during those thirty years as states attempted to address the disparity of education resources within and among districts. In the first

half of the 1990s, per-pupil expenditures flattened, but later rose again starting in 1996–1997. Expenditures are projected to rise by 38 percent (in constant dollars) between 1997–1998 and 2009–2010, according to middle projections[1] estimated by the National Center for Education Statistics (NCES, U.S. Department of Education, 2000).

Education revenues across the nation also showed similar patterns over the past forty years, i.e., experiencing growth as well as some decline. The trends in state revenues are of particular importance because more often than not they constitute the largest share of funds for schools. Although the proportion of state contributions to education funds declined slightly between 1987 and 1998, states continue to play a dominant role in school funding and decision making. For example, state policy directs curriculum development, standardized testing, state accountability systems, and teacher certification. As state decision makers consider how to guide schools and districts in reform efforts that increase student performance, they must consider a range of issues such as revenue adequacy, spending efficiency, teacher assignment, needs-based decision making, and incentives for improved performance.

Attention has shifted somewhat away from equity issues to focus on the continuing rise in performance standards and the expectation for adequate resource support for student achievement. Current research describes how districts distribute their resources, and new research has begun to explore school level resource reallocation practices in an attempt to better understand the relationship between resource-related inputs and student outcomes.

In December 2000, SEDL completed a study of resource allocation in Texas (SEDL, 2000b). That work guided the current study in two important ways. First, key findings indicated

[1] The U.S. Department of Education calculates three sets of projections. One is conservative and estimates low expenditure growth, the second is aggressive and estimates strong expenditure growth, and the third is the middle projection level, an estimate of growth between the low and high estimates.

that Texas school districts at varying levels of student performance allocate resources differently. The question of whether this finding would exist in other states in the region required further investigation in order to gain a deeper understanding of how districts spend money and how different spending patterns may be linked to student achievement. Second, the strategies, attitudes, and experiences of school districts with regard to resource allocation were found to be unique and, in many cases, innovative. Further in-depth study of a larger number of districts across the region was expected to reveal more useful and generalizable information about resource allocation practices for practitioners and education policymakers, especially those seeking change in low-performing schools and districts. The current SEDL study was designed to support and enhance the knowledge base around resource allocation found in the previous study and other school finance research in order to help inform state and school district decisions related to the effective allocation of resources to support student achievement. Additionally, although the passage of the federal *No Child Left Behind* legislation did not occur until after this study was undertaken, SEDL researchers recognize the timely need for data-driven knowledge on best practices to better inform resource allocation decisions that can assist states in meeting legislated requirements.

Purpose of the Study

The purpose of this study was to explore differences in fiscal spending and staffing allocations in relation to varying levels of student achievement and identify resource allocation practices and challenges related to the process of improving student performance. It was intended that the results of this study would provide state and local decision makers with information and strategies for improving the allocation of financial and non-fiscal resources to support greater student success.

Definition of Terms

For the purposes of this study, the following definitions were used:

Expenditures—The amount of education money spent by districts and/or states for school needs (including functions such as instruction, support services, and food services and objects such as salaries, benefits, and materials).

Improvement school district—A school district that has exhibited consistent, sustained student performance improvement over time on norm- or criterion-referenced standardized test scores or as identified by state education agency staff.

Low-/mid-/high-performing school district—A school district's performance level determined by an average of three years of student achievement data from each state divided into three groups of equal numbers of districts.

Resource allocation—The ways in which fiscal and non-fiscal resources are divided between competing needs and expended for educational purposes.

Adequacy—Providing sufficient resources for all students to achieve expected performance levels.

Equity—The fair distribution of educational resources (including uniformity of facilities and environment, equal resource inputs, and equal access to educational opportunities) for all students.

Systemic reform—Recreating an educational system in which all components (e.g., instruction, administration, support, and resources) of the system are aligned and addressed by multiple levels (e.g., state, district, school, and community) to produce more sustainable changes so all students can reach more challenging performance standards.

Research Questions

The four research questions guiding this study were designed to support SEDL's goal to create and promote research-based knowledge to transform low-performing schools and districts into high-performing learning communities (SEDL, 2000a). More specifically, the questions helped pursue a regional interest in knowing how school districts allocate their resources and in better understanding the practices and challenges associated with effective allocation. Implicit in each of the four questions was a focus on resource allocation and student performance and the ways in which school districts spend money and make allocation decisions to improve or sustain student success. Various research methods and data sources were used to answer the four research questions:

1. What are the expenditure patterns over time in school districts across varying levels of student performance?
2. How do improvement school districts allocate their financial and human resources?
3. What allocation practices have improvement school districts implemented that they identify as effective?
4. What barriers and challenges have improvement school districts faced in allocation practices?

Significance and Limitations of the Study

This study benefits policymakers and those that influence policy, researchers, and practitioners in various ways:

- Fills a gap in the current research base addressing the link between resource allocation patterns and student performance and furthers the dialogue on how and whether spending is related to student success.

- Focuses on resource allocation practices within a state and regional context pursued in relatively few studies on resource allocation.
- Provides information to policymakers and practitioners that incorporates unique regional characteristics and needs by targeting the sample selection to states and districts in SEDL's five-state region.
- Increases the understanding of resource allocation for a diverse audience (policymakers, researchers, educators, individuals who influence education policy, and others interested in school finance and/or student performance).
- Uses quantitative and qualitative methodology that increases generalizability and reliability of the findings.

The limitations of this study were considered in the interpretation of the results and should be recognized for future research in this field. The following factors limit the validity, reliability, and generalizability of the results of this study:

- Each of the states in the region use different standardized tests to measure student performance.
- Some of the data came from secondary data sources (existing datasets); therefore, SEDL researchers had no control over the accuracy and standardization of information in those datasets.
- The within-state number of school districts varied, with some states having a small number of districts from which to select comparative data.
- The districts studied had varied and changing characteristics, needs, and resources, some of which could be controlled for while others could not.

II. Literature Review

Theoretical Perspective

SEDL advocates the implementation of a systemic approach to education in which interrelated problems are addressed at multiple levels to ensure the success of all students. A critical component in this systemic approach is the effective use of financial resources. As education systems are redesigned to create high performance in all schools, finance systems must also be redesigned for greater efficiency and effectiveness (Odden & Busch, 1998). Recent trends support this need for considering financial structures in school reform.

- The funding of education has experienced tremendous growth in the past 40 years. However, increased student performance has not accompanied the influx of money into the educational system (Hanushek, 1994; Odden & Busch, 1998).
- Although the disparities are declining, current finance structures are still plagued by funding inequities across states, districts, and schools (Hussar & Sonnenberg, 2000; Parrish & Hikido, 1998; U.S. General Accounting Office, 1997).
- Efforts to reduce class size, appropriately fund programs for disadvantaged students, and update teacher compensation systems require additional funding. The funding necessary for these expenses is most likely to come through new approaches to allocation. Decision makers have an enormous challenge to spend the funds they do have more efficiently (Hanushek, 1994; Odden & Archibald, 2001; Picus, 2001; Picus & Fazal, 1995).

Research efforts in recent decades have helped broaden our understanding of the role of school resources and how their distribution and use can be improved. This study draws from existing knowledge in three areas: resource allocation inputs, the linkage between financial resources and student performance, and effective spending practices.

Resource Allocation

Current resources can and must be used better if ambitious education reform goals and student performance improvement are to be achieved. Research has produced a great deal of information about how dollars are distributed to school districts. However, there is insufficient data in the research on how to put dollars to productive use (Picus & Fazal, 1995). From recent studies, it is known that at least 80 percent of most school district budgets is spent at and within school sites for a wide range of student services such as instruction, school leadership, counseling services, supplies, and materials (Odden & Archibald, 2001). The remaining expenditures support the superintendent's office, tax collection, insurance coverage, and other business and operating expenses.

Another well-established fact is that spending for instruction represents about 60 percent of state and local operating expenditures (Odden & Busch, 1998; Picus, 2001; Picus & Fazal, 1995). High-spending districts generally spend higher percentages of their funds for instruction than low-spending districts, although there are exceptions (Adams, 1997; Hartman, 1988). Researchers find that school districts are basically consistent in the way they allocate resources (Miles & Darling-Hammond, 1998). When funding levels rise due to state aid or property tax increases, districts use operating funds primarily for smaller class sizes and teacher pay increases (Picus & Fazal, 1995). When more program (or categorical) funds are available, districts enhance instructional programs with new technology, teacher aides, and professional development linked to the program.

Some researchers have begun to examine resource allocation in districts undergoing reform to see if new reform ideas also change thinking about resources. So far, they have learned that reform-oriented districts continue to retain control over most operating resources rather than

decentralizing allocation decisions to the school or classroom.

At the school level, even reform-minded districts generally limit school budget authority to Title I, compensatory education funds, professional development funds, and grant resources (Goertz & Duffy, 1999). Reform-oriented schools allocate those funds to improve instruction, using student performance data to make decisions. They tend to hire aides to increase instructional capacity. In part, this approach reflects the magnitude of student need in reading instruction, special education, and English language instruction where small-group and individualized instructional support is believed to be necessary. Goertz and Duffy found that schools with budget authority and flexibility spent their resources in the same way as schools with limited flexibility. Research that resulted in different findings comes from Miles and Darling-Hammond (1998) who reported that urban high schools with strong student achievement that have departed from traditional approaches share six resource allocation strategies. These six strategies are: (1) provide teachers with more generalized roles and reduce specialized programs, (2) use flexible student grouping, (3) organize the school to support stronger personal relationships between students and teachers, (4) provide more common planning time for teachers, (5) implement longer instructional time blocks, and (6) make creative use of the school day and staff.

Odden and Archibald (2001) from the Consortium for Policy Research in Education (CPRE) recently published research that describes what schools do to reallocate resources in response to higher standards. They emphasized that complex, large-scale change processes are required to support improved student performance. Further, schools must address regular instructional programs as well as special programs and have available resources required to implement various strategies in helping student academic performance. The CPRE researchers

concluded with strategies schools can use to pay for new education programs. These included reallocating resources from pull-out programs to regular classes, increasing planning time with innovative scheduling, expanding roles for teachers, and reducing the number of pupil support specialists (counselors, social workers, etc.). In short, the strategies they offer focus on resource reallocation by staffing categories.

Financial Resources and Student Performance

The link between resources and student performance has been investigated in depth by economists and educational researchers for several decades using methods designed to explain and quantify an educational "production function"[2]. A production function is used to describe the important and powerful variables contributing to student performance outcomes like test scores or high school graduation rates.

Production Function Studies

One of the early studies using production functions resulted in the path breaking Coleman Report (Coleman et al., 1966). A key finding of the study was the weak association between school resources and student performance. Coleman and his associates found, instead, that family background characteristics had a large and statistically significant effect on student performance. Hundreds of studies of education production have been conducted since the release of the Coleman Report, and their results have been mixed. Hanushek (1986, 1997) reviewed the results of hundreds of production function studies only to conclude that he could find no systematic,

[2] Educational production functions are mathematical descriptions of how inputs (independent variables) contribute to outcomes (dependent variables). The production function is most often expressed in the form of a linear equation that relates student outcomes (test scores) to characteristics of schools (expenditures, teacher experience, class size), individual student characteristics (family income level, mother's education, race), and previous performance. Linear regression is used to estimate the combined strength of the inputs in contributing to the outputs. Regression also provides coefficients for each independent variable in the equation. The coefficient provides a measure of the strength and direction (positive or negative) of its contribution to the output.

positive relationship between school resources and student performance. Hedges and his colleagues (1994) used a different technique, meta-analysis, for summarizing the results of the same studies Hanushek examined. They concluded that the relationship between resource inputs and student outcomes was consistent and positive and could be used to frame educational policy. Hedges and his colleagues expanded their data collection and analysis in a subsequent study and reported that "a broad range of school inputs are (sic) positively related to student outcomes, and that the magnitude of the effects are (sic) sufficiently large to suggest that moderate increases in spending may be associated with significant increases in achievement" (Greenwald, Hedges, & Laine, 1996, p. 362).

Recently, other researchers have been able to identify some ways in which money matters in the production of student learning. Grissmer and his colleagues reported that "money directed toward educational services for minority and disadvantaged students brings higher achievement scores" (Grissmer, Flanagan, & Williamson, 1998, p. 28). Using an experimental study design within Tennessee schools, researchers examined ways in which increased resources were used. They found that smaller class sizes and employment of better-educated and more experienced teachers made a positive difference for low-income and minority students (Grissmer et al., 1998; Krueger, 1998).

Other lines of research suggest there is more to be learned about how money matters in public schools by looking closely at the practices of schools and districts (Monk & Rice, 1999). One study found a high degree of internal variation across school districts in how teacher resources are distributed to schools (Monk & Hussain, 2000). In another study, Ballou (1998) looked exclusively at urban school districts, examining parent choice, use of substitutes, and teacher salaries. He found that none of these resource-intensive policies were particularly

effective. The implication from this line of research is that urban school decision makers may be able to reallocate resources more efficiently than they are doing using current policies. These studies point to the need to examine data generated by districts and schools, as well as large national datasets, to identify alternatives for allocating resources (Monk & Hussain, 2000). These findings also suggest that studying resource distribution can still yield results that will help state and local policymakers improve schooling for all children through the efficient use of resources.

Cost Studies

Another line of inquiry used to study fiscal effectiveness is cost analysis. Cost analysis has two purposes. One is to accurately identify all the costs associated with complex systems such as schools or programs of instruction. Knowing the actual costs helps policymakers assess the adequacy of education resource levels. The other purpose is to provide an approach or method for choosing among alternatives that give the desired results. In other words, costs can be linked to program outcomes or student performance. The Resource Cost Model, or RCM (Chambers & Parrish, 1994), is an approach to identifying and pricing education inputs. With guidance from groups of educator experts, the RCM approach identifies base staffing levels for regular programs and then identifies effective program practices and staff and resource needs for special programs, such as compensatory education, special education, and bilingual education. The model uses average input prices and analysts adjust the total cost by a regional price or cost index. This method can result in a base funding (or foundation) cost level that can guide decision makers (Chambers, 1995). The advantage of an approach like RCM is that it identifies a set of elements that each district or school would be able to purchase, including resources for special needs. The disadvantage is that there is little connection to student performance. Other models use an economic cost function approach (Reschovsky & Imazeki, 1998) to adjust for "adequate"

performance and cost analyses keyed to high-performing schools (Odden & Picus, 2000).

Cost studies that permit policymakers to understand both the costs and likely outcomes of alternative ways to reach student performance goals are categorized as cost-benefit and cost-effectiveness studies (Levin, 1988). Economists believe that resource allocation can be improved when both the costs and likely outcomes of reaching goals are understood (Levin & McEwan, 2001). A program to improve student's reading achievement may, when implemented, be dramatically successful. But if the program is 50 percent more successful and twice as expensive as a related program, policymakers will want to deliberate very carefully before they allocate resources to the more costly program.

The cost analysis portion of cost-benefit and cost-effectiveness analysis requires researchers to identify all costs of a program, including training, administrative costs, the contributions of volunteers, and other program elements that are typically ignored when school districts decide to allocate resources to new programs. The benefits must also be estimated, using the best instruments for measuring outcomes. Studies that provide only a regression coefficient (as in production function research) or program effect sizes (how much student learning increases independent of cost considerations) do not provide enough information (Levin, 1988). Some school finance experts believe resource allocation decisions should be made by considering the costs and outputs of alternatives as well as general policy considerations as suggested by production function study approaches (Rice, 1997; Tsang, 1997).

Effective Practices

Resource allocation studies suggest promising practices for states, districts, and schools. Hanushek (1994) takes the position that education decision makers should be disciplined to examine their practices through evaluation and cost-effectiveness analysis. He suggests that in

the absence of evidence about which inputs affect student performance, schools should use incentives to stimulate improvement. This includes performance incentives for innovative practices like parental choice and incentives to target programs more effective in meeting student needs.

A study of urban high schools in New York suggests that policymakers should support the creation of smaller high schools because the cost per student of small and large academic high schools, excluding vocational-technical schools, is similar (Stiefel, Berne, Iatarola, & Fruchter, 2000). Numerous studies have suggested that resource allocation for low pupil-teacher ratios will improve performance, at least for poor and minority students (Grissmer et al., 1998; Picus, 2001). A study using Texas state data concluded that smaller class sizes in elementary schools improve student performance (Ferguson, 1991). A more recent study in Tennessee reached a similar conclusion about class size and noted that reliance on aides rather than certified teachers to reduce class sizes may not be effective (Krueger, 1998). A study conducted in Austin, Texas, found that more resources devoted to smaller classes did not, by themselves, improve performance (Murnane & Levy, 1996). Schools needed to understand their unique problems by studying student performance data; providing incentives for teachers, students, and parents; training teachers; and measuring and reporting progress. Reorganizing schools using new design ideas, such as the *New American Schools* design, and restructuring school time can also produce learning gains (Picus, 2001). Clearly there are methods of productively using resources in schools and districts that merit study.

Studying the Relationship Between Resource Allocation and Student Performance

A key finding from the Panel on the Economics of Educational Reform poses an apparent paradox in school finance: inflation-indexed per-student funding for education has increased

over the past half-century, yet overall student performance measured by standardized tests has remained flat (Hanushek, 1994). This finding has puzzled researchers for many years and resulted in investigations that attempt to isolate the effects of resource increases on different types of students. Recent research suggests that spending directed toward efforts such as smaller class size, kindergarten education, better-educated teachers, and more experienced teachers make a difference to some students (Grissmer et al., 1998).

Looking ahead, it is apparent that student achievement will need to improve dramatically if all students are to have equal access to good jobs and secure futures. The goal of standards-based reform is very ambitious (Odden & Busch, 1998). It is a daunting task and poses new types of education reform questions. The challenge is to use current and future funds more effectively. Rather than justifying requests for more money, the issue is how more achievement can be produced with resources roughly at current levels. Ambitious student achievement goals will be difficult to accomplish without a deeper understanding of effective resource allocation.

This situation brings attention to the complexity of the relationship among fiscal resources, student success, and the difficulties that states, districts, and schools face in implementing reform efforts. It also reveals avenues of further study and analysis, including investigations of adequacy and efficient alignment of resources. Researchers need opportunities to investigate spending patterns of successful and unsuccessful schools and districts. Investigators also need a clearer sense of the challenges and barriers states and districts face and the opportunities they encounter in making good use of resources.

SEDL's research study provides a more in-depth understanding of district spending patterns, resource allocation practices, and allocation challenges in SEDL's region. SEDL researchers examined each state's data according to the definitions and rules used within the

state. SEDL researchers will use the results of the study to create research-based knowledge to support the transformation of low-performing schools and districts into high-performing learning communities.

III. Methodology

As a regional education laboratory, SEDL's emphasis is on supporting high levels of achievement for all students in the states of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. To this end, this policy research study describes resource allocation in relation to student performance in districts in SEDL's region. SEDL invited all five states in the region to participate in the study. A letter was sent to each state chief school officer[3] explaining the study and requesting state participation. SEDL researchers made follow-up telephone contacts shortly after the letters were sent. Arkansas, Louisiana, New Mexico, and Texas agreed to participate, while Oklahoma declined.

SEDL researchers applied quantitative and qualitative methods to understand the complex relationship between resource allocation and student performance. They used a variety of data sources, including secondary national and state data and new data from interviews, focus groups, and surveys. (See Table 3.1 for a summary of the research questions, samples, data, and analyses used in the study.) The study examined district level patterns of resource allocation, district and school resource practices implemented to improve student performance, and barriers and challenges faced by districts and schools to efficient resource allocation. To answer the first research question "What are the expenditure patterns over time in school districts across varying levels of student performance?" SEDL researchers examined all independent school districts in the four study states. SEDL researchers studied 12 districts from the larger sample that demonstrated consistent improvements in student performance over time to answer the other three research questions.

[3] In Texas, the letter was sent to a representative of the chief state school officer.

Table 3.1

Methodology Used to Answer Research Questions

Research	Sample	Data	Analysis
1. What are the expenditure patterns over time in school districts across varying levels of student performance?	1,504 independent districts in 4 states (307 in AR, 66 in LA, 89 in NM, 1,042 in TX)	NCES fiscal data (1994–1995 to 1998–1999); NCES staffing and demographic data (1995–1996 to 1999–2000); State education student performance data	Comparison of high- and low-performing districts using analysis of variance (ANOVA) and linear regression model
2. How do improvement school districts allocate their financial and human resources?	12 improvement districts (3 in each state; one small, one medium, and one large in size)	NCES fiscal data (1994–1995 to 1998–1999); NCES staffing and demographic data (1995–1996 to 1999–2000); State education student performance data	Comparison of improvement districts to district group of similar size (5–12 districts per comparison group) using paired sample t-tests and descriptive analysis
3. What allocation practices have improvement districts implemented that they identify as effective?	12 improvement districts (3 in each state; one small, one medium, and one large in size)	School and district administrator interviews and focus groups; teacher surveys	Examination of patterns in qualitative responses using N-VIVO; descriptive statistics of quantitative teacher survey responses
4. What barriers and challenges have improvement districts faced in allocation practices?	12 improvement districts (3 in each state; one small, one medium, and one large in size)	School and district administrator interviews and focus groups; teacher surveys	Examination of patterns in qualitative responses using N-VIVO; descriptive statistics of quantitative teacher survey responses

Resource Allocation in High- and Low-Performing Districts: Investigating Research Question 1

Sample Selection

Independent school districts, as defined by the U.S. Department of Education Common Core of Data (CCD), in all four study states comprised the research sample. Local education agencies that were not examined included regional service centers, institutions operated at the state or federal level, and other non-traditional agencies (such as charter school districts in Texas). The independent districts studied were all local school districts that were not components of supervisory unions or fiscally dependent, i.e., administratively attached to state, county, city, or town governments. Additionally, independent districts were excluded from the sample if more than two years of data, either CCD or performance data, were missing. The missing data were generally due to data technology or reporting errors. As a result, three independent districts in Arkansas were not included in the final sample. The sample included 307 districts in Arkansas, 66 in Louisiana, 89 in New Mexico, and 1,042 in Texas.

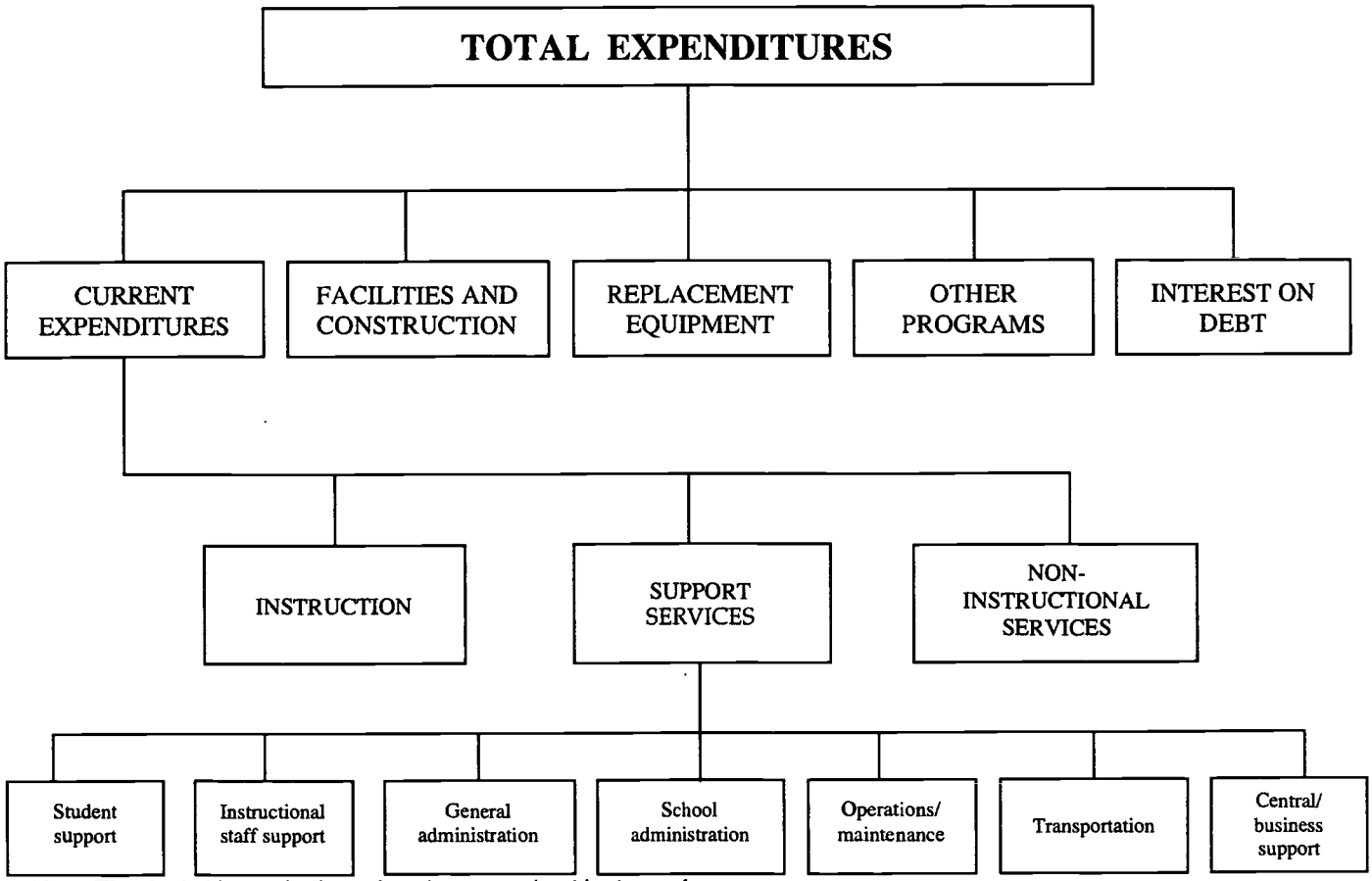
Data Sources

At the initiation of this study in January 2000, SEDL researchers intended to use the same five years of fiscal, staffing, demographic, and performance data for all analyses. Challenges arose in obtaining available data from existing sources for the same five years across all of the variables. As a result, SEDL researchers collected five years of the most currently available data. Existing data were collected on finances, staffing, and demographics from national sources and student performance data from state sources.

Fiscal, staffing, and demographic data were obtained from the National Center for Education Statistics (NCES). Fiscal data from the *Annual Survey of Local Government Finances: School Systems* were collected for school years 1994–1995 to 1998–1999 (U.S. Department of Education data file). The fiscal data included revenues by source and current expenditures by function and object (see Figure 3.1). Current expenditure functions include instruction, support services, and non-instructional services, and objects include salaries, employee benefits, and other objects. (See Appendix A for the fiscal variables and their definitions used in this study.) Expenditures were analyzed as per-pupil expenditures and as shares of current expenditures. The fiscal data were adjusted for inflation using the *Consumer Price Index – All Urban Consumers 1997* (U.S. Department of Labor, 1997). Staffing and demographic data were collected from the *Common Core of Data, Local Education Agency (School District) Universe Survey* and *Public Elementary/Secondary School Universe Survey* for school years 1995–1996 to 1999–2000 (U.S. Department of Education data file). The staffing data included the number of staff members in two categories: teaching staff (teachers per 1,000 students) and administrative staff (district administrators, district administrative support, school administrators, and school administrative support per 1,000 students). The demographic data included various district and student characteristics, such as district size (October 1 enrollment), district type (independent school district, regional service center, or state/federal institution), geographic location (rural, suburban, or urban), student enrollment by race, percentage of special education students, and percentage of students on free and reduced-price lunch (as a measure of economically disadvantaged students). Because New Mexico does not report students on free and reduced-price lunch to NCES, data estimating the percentage of 5- to 17-year-old children in a district who are living in poverty were used to represent economically disadvantaged students in this state. These data

were collected from the Census Bureau's 1997 *Small Area Income and Poverty Estimates: School Districts* (U.S. Census Bureau, 2001).

Figure 3.1. Expenditure Functions in Relation to Total Expenditures



Note. The shaded boxes indicate functions examined in the study.

Performance data were collected from the state departments of education in all four states. Data were collected for school years 1994–1995 to 1999–2000. For Arkansas, district level data on the norm-referenced Stanford Achievement Test, Ninth Edition (SAT-9) were collected. SEDL researchers collected data from Louisiana on the norm-referenced Iowa Test of Basic Skills (ITBS) and from New Mexico on the norm-referenced Comprehensive Test of Basic Skills (CTBS/Terra Nova). For Texas, data were collected on the criterion-referenced Texas Assessment of Academic Skills (TAAS). After examining the performance data provided by

each state, it was found that only three years of data, i.e., school years 1997–1998 to 1999–2000, could be used in the analysis for all five states due to issues of missing data, standardized test changes, and score reporting variability over the five year period.

Data Analysis

A large quantitative dataset was constructed by merging all the data on school district finances, staffing, demographics, and performance. This dataset was used to shed light on the role of fiscal and human resources in student performance to answer the first research question "What are the expenditure patterns over time in school districts at varying levels of student performance?" More specifically, the data were used to compare the allocation of resources in high-performing and low-performing districts.

A district performance indicator was generated by averaging test results from districts or schools across content areas and grade levels to produce one variable for each of the three years of data. Within each state, districts were ranked by a three-year average of their performance indicators. After ranking, the districts were subdivided into three equal sized groups of high-, mid-, and low-performing districts. Stability of rankings was reviewed, comparing a district's rank for each year to the rank for the average. Stability rates for the high- and low-performing groups averaged 66 percent: Louisiana had the most stable groups, Arkansas the least.

To examine the differences between the high- and low-performing groups in fiscal and human resource allocation, group means of the five years of data were compared using an analysis of variance (ANOVA). Additionally, Tukey post-hoc tests were performed when significant mean differences were found. Analyses were conducted on the five years of fiscal and staffing data with performance group and year as fixed variables and resource allocation functions, i.e., instruction, core expenditures, general administration, teachers, and

administrators, as dependent variables. All analyses used an alpha level of .05 to determine statistical significance.

The impact of demographic factors and socioeconomic status on student performance has been demonstrated in numerous previous studies. To fully explore the relationship between resource allocation and student performance, SEDL researchers felt it was necessary to control for these factors. An adjusted set of district performance groups that controlled for demographic and socioeconomic factors was analyzed within each state. A full linear regression model was generated on the district performance indicator for each year. The regression analysis controlled for percent free lunch (poverty in New Mexico), percent total minority, percent special education, and district size (student membership). For Texas, the number of districts was sufficient to allow for additional variables, so the ethnic variables were used individually, rather than as a percent of total minority. The regression model was used to generate an adjusted performance indicator using the control variables and their centered two-way interaction variables. The interaction variables were centered in order to reduce the multicollinearity in the model. Centering requires subtracting the average of a variable from each data point of that variable. The resulting amounts are then multiplied to create the centered two-way interaction variables. All variables were kept in the regression to allow for the maximum prediction possible; therefore, variables were not eliminated due to their significance level.

The districts were ranked on the three-year average of the residuals (the adjusted performance indicator) and then subdivided into adjusted performance groups. Stability rates averaged 47 percent for the high- and low-adjusted groups. For purposes of identifying additional bias, the stability rates for membership in these groups were compared to those of the non-adjusted groups. The group difference in stability rates did not significantly increase bias.

Resource Allocation in 12 Improvement Districts: Investigating Research Questions 2-4

Sample Selection

In selecting a smaller sample of 12 school districts demonstrating consistent improvement in student performance over time from all of the independent districts, SEDL researchers reviewed the performance and demographic data collected from the states. To be classified as an improvement district, a district had to have at least three consecutive years of performance gains from 1996–1997 to 1998–1999. In addition, recognizing SEDL's goal to create and promote research-based knowledge to transform low-performing schools and districts into high-performing learning communities and the abundance of research that has shown a high correlation between performance and socioeconomic and minority status, policy staff chose to further select improvement districts that had higher-than-state average levels of minority and/or poverty student populations. In order to increase the generalizability of the findings from the improvement districts, the districts were selected to reflect the diversity of districts in their states in terms of geographic location, size, and urbanicity

SEDL researchers divided all identified improvement districts into three groups of varying size: small (800–1,999 students), medium (2,000–10,000 students), and large (more than 10,000 students). School districts with fewer than 800 students were not included because it was often difficult to obtain complete performance data for these districts. Additionally, districts with more than 35,000 students were not included because all of the states except Texas had few, if any, districts with of that size from which a selection could be made. SEDL researchers first identified a number of improvement districts in each size group in each state, then asked state education agency staff for feedback as to the appropriateness and accessibility of these districts. Based on the established criteria and state agency feedback, SEDL made initial selections and

sent invitation letters to district superintendents, including a one-page study overview (see Appendix B). If a district declined to participate, an alternate district was selected until a sample of three districts, one from each size group in each state, was complete. A total of four districts declined to participate, one in Louisiana and three in Texas. All four districts gave no explanation other than they did not want to participate at that time.

It is worth noting that the 12 districts were selected on the basis of consistent improvements in student performance, not on the basis of consistently high student performance. As ranked by their own state performance systems, some of the improvement districts moved from an "average" level of performance to an "above average" level, while others moved from "less than average" to "average". In the analysis of all independent school districts in the four states, only a few of the improvement districts fell in the high-performance group in their state, for both the adjusted and non-adjusted groups (see Table 3.2).

Enrollment in the 12 improvement districts varied, with small districts having 823 to 1,452 students, medium districts having 2,474 to 9,884 students, and large districts having 11,441 to 22,185 students. The small districts were mostly rural while the large districts were mostly urban (see Table 3.3).

Two of the criteria used to select improvement districts were higher-than-state-average poverty and/or minority student populations (see Table 3.4). Ten of the 12 improvement districts had higher student poverty compared to their state averages and six had higher student minority populations. Only one of the 12 improvement districts did not meet either of the two criteria. The specific district was one of only a few districts in its state that could be defined as large and more than 40 percent of its schools had both high-poverty and high-minority student populations. SEDL researchers used this factor in selecting this particular district for study.

Table 3.2

Improvement District Student Performance Rankings

District	Non-adjusted group performance rank	Adjusted group performance rank	State performance rank 1999-2000
Arkansas			
Small	High	High	No ranking[a]
Medium	Middle	High	No ranking
Large	High	High	No ranking
Louisiana			
Small	High	High	Academically above average[b]
Medium	Middle	Low	Academically above average
Large	High	Middle	Academically above average
New Mexico			
Small	Middle	High	Meets standards[c]
Medium	Middle	Middle	Meets standards
Large	Middle	Middle	Meets standards
Texas			
Small	Low	Middle	Recognized[d]
Medium	Low	Middle	Recognized
Large	Low	Middle	Recognized

[a] No ranking assignments available for the Arkansas Department of Education. [b] Ranks assigned by the Louisiana Department of Education include academic excellence, academic distinction, academic achievement, academically above average, academically below average, academically unacceptable. [c] Ranks assigned by the New Mexico Department of Education include exemplary, exceeds standards, meets standards, probationary. [d] Ranks assigned by the Texas Education Agency include exemplary, recognized, acceptable, unacceptable.

Table 3.3

Improvement District Student Enrollment and Urbanicity, 1999-2000

	Small district		Medium district		Large district	
	Student enrollment	Location[a]	Student enrollment	Location	Student enrollment	Location
Arkansas	1,159	Rural	4,250	Rural	11,441	Urban
Louisiana	1,331	Rural	4,393	Suburban	19,503	Urban
New Mexico	823	Rural	9,884	Rural	22,185	Urban
Texas	1,452	Suburban	2,474	Suburban	18,506	Suburban

Note. The data for location are from *U.S. Department of Education Local Education Agency (School District) Universe Survey Data.* [NCES data file]. http://www.nces.ed.gov/ccd/pubagency.asp. The data for student enrollment are from the Arkansas State Department of Education, Louisiana Department of Education, New Mexico Department of Education, and Texas Education Agency. [a] Location as defined by the U.S. Department of Education: rural indicates a district that does not serve a metropolitan statistical area (MSA), suburban indicates a district that serves an MSA but not primarily its central city, and urban indicates a district that serves a central city of a MSA [b]

Table 3.4

Improvement District Race/Ethnicity and Free Lunch, 1999-2000

	Small district						Medium district						Large district					
	Percent race/ethnicity[a]					Percent free	Percent race/ethnicity					Percent free	Percent race/ethnicity					Percent free
State	W	B	H	A	N	lunch[b]	W	B	H	A	N	lunch	W	B	H	A	N	lunch
AR	99	0	0	1	1	39	42	56	1	1	0	49	68	15	9	7	3	38
LA	62	37	1	0	0	53	61	33	1	4	1	51	61	37	1	1	0	39
NM	6	0	93	0	0	81	42	3	55	1	0	85	31	2	65	1	1	76
TX	11	3	86	0	0	64	51	22	26	0	0	54	18	21	58	2	0	51

Note. Louisiana and Texas race/ethnicity and free lunch data are from the Common Core of Data, Arkansas race/ethnicity and free lunch data are from the Arkansas Department of Education, and New Mexico race/ethnicity data are from the New Mexico Department of Education.

[a] W –White, B – Black, H – Hispanic, A– Asian, N – Native American. All race/ethnicity figures are percentages of the total student population. [b] Percent free lunch is not available in New Mexico, therefore, reduced lunch percent of meals served was used from the *New Mexico Accountability Report 1999–2000.*

Data Sources

The NCES fiscal and staffing data used in the analysis of all districts were also used to describe the resource allocation patterns of the 12 improvement districts. SEDL researchers also conducted individual interviews with four to seven key district and school level decision makers in each district and focus group interviews with school principals in four improvement districts. All interview participants were required to sign a consent form (see Appendix B). Additionally, surveys were distributed to all teachers in the 12 improvement districts (N=7,840), and district and school documents were reviewed. Together these sources served the goal of gaining a broader, more complete picture of resource allocation practices in improvement districts.

Interview data allowed SEDL researchers to understand how the 12 improvement school districts allocated their financial resources, what effective allocation practices they implemented, and what allocation challenges and barriers they faced. Interview subjects were identified based on their knowledge and expertise in district finance issues and their role in the resource allocation decision-making process. Participants included superintendents, directors of

instruction, chief financial officers, personnel directors, principals, and other district and/or school personnel. SEDL researchers developed two structured interview protocols with closed- and open-ended questions centered on the three improvement district research questions, one protocol for district administrators and the other for school administrators (see Appendix B). School administrators were asked the same questions as district administrators; however, they were also asked additional questions about school resource allocation practices. The interview protocols were piloted with a district in the region that was not part of the study sample. As a result, slight changes were made to several questions for greater understanding and clarity. Interviews at each district site were conducted by at least two SEDL researchers. Each interview was recorded and interviewers wrote supporting notes. Additionally, the SEDL researchers recorded a site summary upon the completion of interviews at each site to capture major findings. Interview tapes were transcribed to provide a literal account of the interview dialogue.

Focus groups were conducted to capture interactive dialogue on resource allocation practices through the lens of school administration, and to broaden the size and scope of information available from the improvement district sample. SEDL researchers developed a focus group protocol containing six open-ended questions on effective practices and barriers and challenges relating to resource allocation, similar to those asked in the individual interviews (see Appendix B). Principals who were not part of the study reviewed the instrument prior to implementation and no changes were suggested. Trained SEDL researchers conducted one focus group in each of the four states in the study. Staff in the selected improvement districts were asked to refer no more than eight principals to participate in each group. Two members of the research team conducted each focus group, allowing one person to facilitate the discussion and the other to take field notes and observe. Focus group facilitators encouraged participants to

exchange strategies and challenges for supporting improved performance through allocation practices. SEDL researchers recorded the group sessions, and audiotapes were transcribed to provide a literal account of the focus group dialogue.

Teacher surveys were developed to provide SEDL researchers with the classroom-level view of effective practices, barriers, and challenges regarding district and school resource allocation to support student achievement improvement. The survey solicited both quantitative and qualitative information, guided by the research questions on improvement school districts. The survey included open-ended, forced-choice, and Likert scale formats (see Appendix B). The survey was a self-administered questionnaire requiring, on average, 15 minutes to complete. It included instructions on how to complete the form, information for respondents about the resource allocation study, and assurance of confidentiality so that respondents could make an informed decision whether to participate. Anonymity of responses was maintained in the survey by asking respondents not to provide personal identifying information. Individuals with classroom teaching experience, both internal and external to SEDL, who were not part of the study piloted the survey. Pilot participants provided feedback regarding clarity of language, length of the survey, appropriateness of questions for the intended audience, and suggestions for additional survey questions. The research team made revisions to the survey and a final version was disseminated in all improvement districts between October 2001 and January 2002. A district level contact person at each improvement district was asked to distribute the surveys to all instructional staff at all campuses in the district. Attached to each survey was a self-addressed, postage-paid envelope that respondents used to return their surveys. Each district was given a three-week period from the time the surveys were mailed to a return deadline specified on the survey, coinciding with research team interview visits at the districts.

Completed surveys were returned from 1,864 individuals (24 percent return rate); however, SEDL researchers eliminated responses from those who did not identify themselves as teachers, creating a sample of 1,701 teachers (22 percent return rate). This decision was made in order to focus the survey analysis on the perspectives of individuals with direct teaching experience. Analysis of results from all respondents indicated that there was little difference in response means from the teachers (92 percent) and the other instructional staff (8 percent), suggesting that omitting other instructional staff did not significantly skew the results. A breakdown of the teacher respondents from each improvement district appears in Table 3.5.

Table 3.5

Improvement District Teacher Survey Response Rate

State	District designation	Number of surveys distributed	Number of teacher respondents	Percent of all teacher respondents
AR	Small	100	45	2.6
	Medium	350	62	3.6
	Large	1,000	273	16.0
LA	Small	150	51	3.0
	Medium	400	89	5.2
	Large	2,000	328	19.3
NM	Small	60	33	1.9
	Medium	725	171	10.1
	Large	1,200	264	15.5
TX	Small	75	66	3.9
	Medium	180	100	5.9
	Large	1,600	219	12.9
Total		7,840	1,701	100.0

SEDL researchers additionally obtained relevant state and district laws and policy documents germane to resource allocation decisions. State laws, rules, and fiscal policies assisted SEDL researchers in understanding the broader state context for resource allocation. These

documents also assisted in refining draft interview and focus group protocols. SEDL researchers also collected budgets, improvement plans, annual reports, audits, teacher assignment policies, allocation formulas, and fiscal policies for the improvement districts during interview visits. State and district documents assisted SEDL researchers in establishing the context within each state necessary for analysis and interpretation of the data. The research team reviewed collected documents to track processes, outline procedures, and confirm data collected through interviews, focus groups, surveys, and existing financial databases.

Data Analysis

Patterns in the following variables were examined: teachers per 1,000 students, administrative staff members per 1,000 students, revenue per pupil in each of the revenue categories, revenue in each category as a share of total revenue, expenditures per pupil in each of the expenditure categories, and expenditures in each category as a share of total current expenditures. The percent changes from the first to last year were also examined for each of these variables. In addition to descriptions of the staffing and fiscal practices of the improvement districts, comparisons were also made between each of the 12 districts to a group of districts of similar size within each state. The comparison districts were selected by ranking all districts within each state by their 1999–2000 student membership then selecting the six districts with a student population immediately above and below the improvement district. The improvement district itself was also included in the comparison group, thus each comparison group consisted of 13 districts. It was recognized that including the improvement district in the comparison group increased bias and any statistically significant results would provide conservative estimates of difference. For three improvement districts the comparison groups consisted of fewer than 13 districts, but no fewer than five districts. This occurred because there were too few districts of

similar size to the improvement district within that state to include in the comparison group.

Staffing and fiscal allocations in each improvement district were compared to those in the districts in its comparison group using descriptive analyses and paired sample t-test statistical analyses. The patterns of each comparison group were determined by taking the average of each staffing and fiscal variable for the 13 districts. First, each variable was displayed individually for each of the five years, along with the average of the five years, totaling six points of comparison for each variable. The value for the improvement district was then compared to the value for the comparison group, and a determination was made about which was higher. If, among the six points of comparison, the value for the improvement district was consistently higher or lower four or more times and consistent with the average value of the five years, the improvement district was given a higher/lower value label for that variable. Thus, a determination was made on each variable whether the improvement district, in comparison to similar-sized districts, had a lower or higher value or too similar to denote a difference. A tally system was then used to determine how many of the 12 districts had higher/lower values on each variable. It was decided that a majority of the improvement districts showed a similar pattern in relation to the comparison groups if eight or more of the twelve showed the same data trends. To further validate this observational analysis, paired sample t-tests were conducted to determine any statistically significant differences between the improvement districts and their comparison district group on the staffing and fiscal variables.

Qualitative data from individual interviews and focus group sessions were reviewed, categorized, and analyzed using qualitative methods, as recommended by Miles and Huberman (1994). Interview and focus group transcripts were first analyzed using open coding in order to identify relevant themes. Three areas of thematic categories were identified: (1) innovative

resource allocation practices, (2) general practices found effective or directly related to student achievement growth, and (3) barriers and challenges in allocation practices. With the aid of qualitative N-Vivo software, SEDL researchers performed thematic coding of all transcripts. After thematic coding was completed, SEDL researchers organized results using the three improvement district research questions as organizing guides. SEDL researchers again examined the data to identify themes and patterns within states and across all districts. Results were cross-referenced with quantitative data and with results from a survey of teachers in the 12 improvement districts in order to triangulate findings. To address inter-rater reliability, two SEDL researchers coded these data and at least one interviewer who performed the interview or focus group reviewed the coding results.

Survey data from the 1,864 returned surveys were entered into FileMaker Pro database software. Data entry validity checking produced an error rate of less than 1 percent. SEDL researchers transferred data from close-ended questions to SPSS software for analysis. Quantitative analysis included descriptive statistics such as frequency counts, percentages, and cross-district comparisons by demographic variables. To organize results from open-ended survey questions, SEDL researchers used MS Excel spreadsheet software. Common themes expressed by survey respondents within and across districts were identified through the analyses of qualitative data.

IV. Findings

SEDL researchers used the four research questions as guides for the collection and analysis of the data, and presentation of the findings. The findings are organized in direct response to the questions. First addressed is "What are the expenditure patterns over time in school districts across varying levels of student performance?" SEDL researchers discuss the results from the investigation of resource allocation in all districts in the four study states (Arkansas, Louisiana, New Mexico, and Texas). Fiscal and staffing patterns over time in high- and low-performing districts are presented to further address the question. In order to answer the remaining three research questions related to improvement districts, SEDL researchers discuss how the 12 improvement districts allocated their financial and human resources using results from a comparative analysis of fiscal and staffing data. Second, they identify the allocation practices and strategies that support student performance improvement. Last, SEDL researchers describe the barriers that get in the way of effective allocation from the perspective of teachers and administrators at the improvement districts.

Research Question 1: What are the Resource Allocation Patterns Over Time in School Districts at Varying Levels of Student Performance?

To examine the differences in fiscal and human resource allocation over the five years between low-performing and high-performing groups of districts, the means of the groups were compared with an analysis of variance (ANOVA). The fiscal variables included in the analysis were expenditures for instruction, core expenditures (a combination of instruction, instructional staff support, and student support), and general administration. (See Figure 3.1 for an overview of expenditure categories.) Expenditures can be analyzed as the dollar amount spent per pupil and as the share of a larger category of expenditures (such as total expenditures or current

expenditures). The three variables used in the analysis were examined both as per pupil and as shares of current expenditures (a combination of instruction, support services, and non-instructional services). The staffing variables included in the analysis were the number of teachers per 1,000 students and the number of administrative staff per 1,000 students. Only main effects for the performance groups are included in this report.

A general pattern was evident in which higher performance was associated with higher spending for instruction, core expenditures, and teachers and lower spending for general administration and administrative staff (see Table 4.1). (For more detailed regression and ANOVA statistical analyses results see Appendix C.) In all four states, high-performing districts spent significantly more than low-performing districts on instruction as a share of current expenditures.

Other significant spending patterns were not as consistent across all four states, although some similarities and differences across the states were found. For example, in Louisiana, New Mexico, and Texas, high-performing districts spent significantly more on instruction per pupil and employed more teachers per 1,000 students than did low-performing districts. In contrast, Arkansas high-performing districts spent significantly less on instruction per pupil and employed fewer teachers. Further, in comparison to low-performing districts, high-performing districts in Arkansas and Louisiana spent significantly more on core expenditures and significantly less on general administration as shares of current expenditures, while in Texas the opposite was found. SEDL researchers also found that in Arkansas and Louisiana high-performing districts spent significantly less on general administration, per pupil and as a share of current expenditures. Additionally, Arkansas high-performing districts employed significantly fewer administrative staff per 1,000 students. Again, Texas showed contrasting patterns in regard to general

administration expenditures. Texas high-performing districts spent significantly more on general administration, per pupil and as a share of current expenditures; however, they employed significantly less administrative staff.

General patterns were also evident when comparing high- and low-performing districts within each state (see Table 4.1). For example, Arkansas high-performing districts spent significantly less per pupil, but higher shares, on instruction related expenditures while employing fewer staff. In Louisiana, high-performing districts spent significantly more on instruction related expenditures and less on general administration while employing significantly more teachers. New Mexico and Texas had similar state patterns in that their high-performing districts spent significantly more on direct instruction expenditures, including employing more teachers. However, in Texas an additional spending pattern was seen. High-performing districts in that state also spent significantly more on general administration while employing less administrative staff.

Table 4.1

Comparison of Fiscal and Staffing Allocations in Non-Adjusted Performance Districts

State	Instruction expenditures		Core expenditures		General administration		Teachers	Admin. staff
	Per pupil	Share	Per pupil	Share	Per pupil	Share	Per 1,000 students	Per 1,000 students
AR N=307	-	+	-	+	-	-	-	-
LA N=66	+	+	+	+	-	-	+	ns
NM N=89	+	+	ns	ns	ns	ns	+	ns
TX N=1042	+	+	ns	-	+	+	+	-

Note. (+) indicates that high-performing districts spent more than low-performing districts ($p<.05$)
(-) indicates that high-performing districts spent less than low-performing districts ($p<.05$)
(ns) indicates no significant difference between the high-performing and low-performing group

Differences in resource allocation between low- and high-performing groups were reduced when comparisons were made that controlled for demographic factors and socioeconomic status. As seen in Table 4.2, non-significant results predominated after this adjustment, with no significant differences at all between the groups in Arkansas and New Mexico. However, in Louisiana and Texas some significant results remained between the adjusted high-performing districts and the adjusted low-performing districts. For example, SEDL researchers found that in Louisiana, significantly more was still spent per pupil on instruction and core expenditures, and on instruction as a share of current expenditures, by the adjusted high-performing districts. Additionally, these districts had significantly more teachers and administrative staff per 1,000 students. In the adjusted analysis on Texas districts, high-performing districts still spent significantly more per pupil than low-performing districts on instruction and general administration, spent significantly more on general administration as a share of current expenditures, spent significantly less on core expenditures as a share of current expenditures, and had significantly more teachers per 1,000 students.

Although most of the statistically significant differences between the high- and low-performing groups became non-significant after adjusting for the socioeconomic and demographic factors, some new significant differences were found in Louisiana and Texas in the adjusted analysis (see Tables 4.1 and 4.2). In Louisiana, for example, comparison of the adjusted groups indicated high-performing districts employed significantly more administrative staff, whereas in the comparison of the non-adjusted groups there was no statistically significant difference. In Texas, the adjusted high-performing districts spent significantly more per pupil on core expenditures than the adjusted low-performing districts. When not adjusted for the additional factors, there was no significant difference between the groups.

Table 4.2

Comparison of Fiscal and Staffing Allocations in Adjusted Performance Districts

State	Instruction expenditures		Core expenditures		General administration		Teachers	Admin. staff
	Per pupil	Share	Per pupil	Share	Per pupil	Share	Per 1,000 students	Per 1,000 students
AR N=307	ns	ns	ns	ns	ns	ns	ns	ns
LA N=66	+	+	+	ns	ns	ns	+	+
NM N=89	ns	ns	ns	ns	ns	ns	ns	ns
TX N=1042	+	ns	+	-	+	+	+	ns

Note. (+) indicates that high-performing districts spent more than low-performing districts ($p<.05$)
(-) indicates that high-performing districts spent less than low-performing districts ($p<.05$)
(ns) indicates no significant difference between the high-performing and low-performing group

In Summary

Results revealed that higher student performance was associated with higher levels of resource allocation in specific expenditure categories. For the unadjusted performance groups, higher student performance was associated with higher spending on instruction and core expenditures and higher numbers of teachers per 1,000 students. For the adjusted performance groups, higher student performance was associated with higher levels of resource allocation in most of the categories examined, but only in Louisiana and Texas.

Research Question 2: How do Improvement Districts Allocate Their Resources?

Staffing and fiscal data from the 12 improvement districts were examined in order to answer the second research question. The staffing data presented include the number of teachers and administrative staff per 1,000 students. The fiscal data presented include current and core expenditures as well as revenues. Expenditures were examined for levels of spending and shares of larger expenditure categories. (For an overview of expenditure categories see Figure 3.1 and

for definitions of the fiscal variables used in the analysis see Appendix A.)

Each of the 12 improvement districts was compared individually to a group of similar-sized districts within that state using paired samples t-test analyses and visual inspection of resource allocation patterns during the period between 1994–1995 and 1998–1999. The paired samples t-tests used the averages of the five years of staffing and fiscal data, while the visual inspection examined all five years of data individually. (The tables presented display the averages of the five years. See Appendix D for individual five-year data.) In general, SEDL researchers found that the resource allocation patterns of the 12 improvement districts showed a focus on instruction and instruction-related areas over the five-year period.

Staffing Resources

The 12 improvement districts employed, on average, between 59 and 82 teachers per 1,000 students from 1995–1996 to 1999–2000 (see Table 4.3). Inspection of the data showed that eight of the 12 improvement districts employed more teachers per 1,000 students than comparison districts; however, results from a paired sample t-test indicated no statistically significant differences between improvement districts and comparison districts.

At the same time, the increases in teachers per 1,000 students for the 12 improvement districts ranged from three to 17 (or from 5 percent to 30 percent), as shown in Table 4.3. Inspection of the data indicated that 10 of the 12 improvement districts increased the number of teachers more than comparison districts over the five-year period. Results of a paired samples t-test on the increase in teachers per 1,000 students over time showed a statistically significant difference between the improvement districts ($M = 7$, $SD = 3$) and comparison districts ($M = 5$, $SD = 2$), $t(11) = 3.422$, $p = .006$ (two-tailed).

Table 4.3

Teachers per 1,000 Students in Improvement Districts and Similar-Sized Districts from 1995-2000

	Small districts		Medium districts		Large districts	
District groups	Average N of teachers	Amount of change in teachers	Average N of teachers	Amount of change in teachers	Average N of teachers	Amount of change in teachers
AR improvement districts	60	17	62	7	60	9
AR comparison districts	61	10	59	7	57	6
LA improvement districts	71	8	62	7	61	9
LA comparison districts	67	9	65	6	61	7
NM improvement districts	68	3	59	9	62	3
NM comparison districts	65	3	57	5	59	2
TX improvement districts	82	7	69	6	60	9
TX comparison districts	73	4	69	3	64	5

Note. The data are from the National Center for Education Statistics, *Local Education Agency (School District) Universe Survey.*

Analyses of administrative staff members per 1,000 students from 1995–1996 to 1999–2000 also revealed some differences between the 12 improvement districts and their comparison districts. As seen in Table 4.4, the improvement districts employed, on average, between 6 and 37 administrative staff members per 1,000 students over the five-year period. Administrative staff includes district and school administrators as well as district and school administrative support staff. Changes in the number of administrative staff employed per 1,000 students did not necessarily increase over time as was seen with teachers per 1,000 students. Rather, administrative staff changes ranged from a decrease of 67 staff to an increase of four staff for the 12 improvement districts (see Table 4.4). Although not statistically significant, SEDL researchers noted a weak pattern across the individual years of data with seven of the 12 improvement districts having smaller increases in the number of administrative staff than comparison districts (see Appendix D for individual five-year data).

Table 4.4

Administrative Staff per 1,000 Students in Improvement Districts and Similar-Sized Districts from 1995–2000

	Small districts		Medium districts		Large districts	
District groups	Average # of admin.	Amount of change in admin.	Average # of admin.	Amount of change in admin.	Average # of admin.	Amount of change in admin.
AR improvement districts	7	-3	6	-3	11	0
AR comparison districts	8	-1	8	-2	9	1
LA improvement districts	13	1	9	2	7	1
LA comparison districts	10	2	9	1	8	1
NM improvement districts	20	2	37[a]	-67[a]	11	3
NM comparison districts	18	4	16	-7	14	3
TX improvement districts	9	1	10	4	7	1
TX comparison districts	10	1	10	1	8	1

Note. The data are from the National Center for Education Statistics, *Local Education Agency (School District) Universe Survey*. [a] The high value for the medium NM improvement district may be a reporting error.

In regard to staffing resource allocation, 67 percent of the improvement districts had higher levels of teaching staff per 1,000 students and statistically significant increases in teachers over the five years. Only weak or inconsistent differences were found for the allocation of administrative staff.

Fiscal Resources

SEDL researchers also examined the fiscal resources of the 12 improvement districts. Current expenditures (instruction, support services, and non-instructional services) and core expenditures (instruction, student support, and instructional support services) were examined. These expenditures were analyzed in three ways: (1) as levels of spending, i.e., dollars per pupil, (2) as changes in per-pupil spending, i.e., dollars per pupil increased or decreased over time, and (3) as shares of larger expenditure categories, i.e., percent of dollars spent.

SEDL researchers also examined several other areas of spending in order to broaden the perspective of how resources were allocated. Weak or inconsistent differences and no statistical significance were found for the allocation of fiscal resources for general administration, school administration, transportation, and operation/maintenance. Additionally, no consistent or significant differences were found when the expenditure shares of the improvement district were compared to those of the comparison districts. Therefore, only results from the analyses of expenditure levels and increases for current and core expenditures are discussed.

Current expenditures. The 12 improvement districts spent between $4,295 and $6,375, on average, in current per-pupil expenditures from 1994–1995 to 1998–1999. Although not statistically significant, inspection of the five years of data showed that eight of the 12 improvement districts spent more per pupil in current expenditures than similar-sized districts (see Table 4.5). At the same time, the increases in per-pupil current expenditures ranged from $273 to $1,479.

Table 4.5

Comparison of Current Expenditures Per Pupil for Improvement and Similar-Sized Districts, Averaged from 1994–1999

	Dollars per pupil for current expenditures		
District groups	Small district	Medium district	Large district
AR improvement districts	4,295	4,660	5,073
AR comparison districts	4,476	4,639	5,203
LA improvement districts	5,033	5,433	4,590
LA comparison districts	5,009	4,991	4,808
NM improvement districts	6,375	4,463	4,735
NM comparison districts	5,794	4,430	4,699
TX improvement districts	5,840	5,945	4,885
TX comparison districts	5,638	5,448	5,187

Note. Data are from the National Center for Education Statistics, *Annual Survey of Local Government Finances: School Systems.*

To get a more accurate picture of where the differences in current expenditures occurred, each of the three functions: instruction, support services, and non-instructional services, was examined. The expenditure levels for the three components are shown in Table 4.6.

Table 4.6

Comparison of Current Expenditures (Instruction, Support Services, and Non-Instructional Services) Per Pupil for Improvement and Similar-Sized Districts, Averaged from 1994–1999

	Dollars per pupil for functions within current expenditures								
	Instruction			Support services			Non-instructional services		
District groups	Small district	Medium district	Large district	Small district	Medium district	Large district	Small district	Medium district	Large district
AR improvement	2,857	2,930	3,174	1,169	1,448	1,620	269	283	279
AR comparison	2,816	2,913	3,208	1,337	1,417	1,693	323	309	302
LA improvement	2,800	3,049	2,943	1,772	2,024	1,362	460	361	285
LA comparison	2,868	2,860	2,951	1,697	1,714	1,507	444	418	350
NM improvement	3,218	2,699	2,680	2,648	1,552	1,778	508	213	277
NM comparison	3,056	2,534	2,656	2,418	1,633	1,779	320	263	265
TX improvement	3,673	3,443	2,825	1,829	2,174	1,745	337	328	315
TX comparison	3,523	3,361	3,218	1,811	1,786	1,663	305	302	306

Note. Data are from the National Center for Education Statistics, *Annual Survey of Local Government Finances: School Systems.*

Over the five years, the 12 improvement districts spent between $2,680 and $3,673 per pupil on instruction. Although not statistically significant, it was found that eight of the 12 improvement districts spent more per pupil on instruction than comparison districts. From 1994–1995 to 1998–1999, the increase in per-pupil spending for instruction ranged from $145 to $769. Over the five-year period, the 12 improvement districts spent between $1,169 and $2,648 per pupil on support services, and increases in per-pupil spending for support services ranged from $93 to $661.

From 1994–1995 to 1998–1999, the 12 improvement districts spent between $1,169 and $2,648 per pupil on support services. No consistent patterns or statistically significant differences

were found on the levels of spending or changes in spending in the area of support services.

The improvement districts spent between $213 and $508 per pupil on non-instructional services, and the changes in per-pupil spending over the five years ranged from a decrease of $63 to an increase of $49 per pupil. It was observed that nine of the 12 improvement districts had less of an increase in expenditures for non-instructional services over the five-year period than comparison districts, and a paired samples t-test found a statistically significant difference between the improvement districts (M = 1, SD = 34) and comparison districts (M = 27, SD = 29), $t(11) = 3.355$, $p = .006$ (two-tailed).

Core expenditures. In examining the connection between fiscal resources and student performance, core expenditures are often examined. Over the five years, the 12 improvement districts spent between $3,085 and $4,090, on average, on core expenditures per pupil. Although not statistically significant, it was observed that nine improvement districts spent more per pupil in core expenditures than comparison districts (see Table 4.7).

Table 4.7

Comparison of Core Expenditures Per Pupil for Improvement and Similar-Sized Districts, Averaged from 1994–1999

	Dollars per pupil for core expenditures		
District groups	Small district	Medium district	Large district
AR improvement districts	3,085	3,367	3,770
AR comparison districts	3,119	3,293	3,708
LA improvement districts	3,267	3,456	3,351
LA comparison districts	3,297	3,259	3,330
NM improvement districts	3,951	3,245	3,396
NM comparison districts	3,757	3,077	3,301
TX improvement districts	4,090	4,061	3,293
TX comparison districts	4,007	3,838	3,707

Note. Data are from the National Center for Education Statistics, *Annual Survey of Local Government Finances: School Systems.*

Between 1994–1995 and 1998–1999, the increases in core expenditures per pupil ranged between $189 and $1,042 for the 12 improvement districts, as seen in Table 4.8. Inspection of the data showed that nine improvement districts had a higher rate of increase in their core expenditures per pupil over the five years than comparison districts. A paired samples t-test found the improvement district core expenditure increases (M = 556, SD = 227) to be statistically significant compared to the similar-sized districts (M = 462, SD = 224), $t(11) = 2.398$, $p = .035$ (two-tailed).

Table 4.8

Increases Over Time in Per-Pupil Core Expenditures for Improvement Districts and Similar-Sized Districts, Averaged from 1994–1999

	Dollar increases in per-pupil core expenditures		
District groups	Small district	Medium district	Large district
AR improvement districts	426	189	252
AR comparison districts	161	159	338
LA improvement districts	623	612	813
LA comparison districts	612	503	607
NM improvement districts	1,042	528	560
NM comparison districts	907	601	607
TX improvement districts	646	502	483
TX comparison districts	379	470	205

Note. Data are from the National Center for Education Statistics, *Annual Survey of Local Government Finances: School Systems*.

To get a more accurate picture of resource allocation related to instructional activities, the functions comprising core expenditures, i.e., instruction, student support, and instructional staff support, were examined. Since instruction is both a component of current expenditures and of core expenditures, the results for this category can be found in the previous discussion on current expenditures.

As shown in Table 4.9, the 12 improvement districts spent between $138 and $419 per pupil on student support (health, attendance, guidance, and speech) and between $90 and $317 per pupil on instructional staff support (curricular development, in-staff training, and educational media including libraries). Although not statistically significant, it was observed that eight improvement districts spent more per pupil on instruction and nine on student support than comparison districts, while eight spent more per pupil on instructional staff support.

Table 4.9

Comparison of Core Expenditures (Instruction, Student Support, and Instructional Staff Support) Per Pupil for Improvement and Similar-Sized Districts, Averaged from 1994–1999

	Dollars per pupil for components of core expenditures								
	Instruction			Student support			Instructional staff support		
District groups	Small district	Medium district	Large district	Small district	Medium district	Large district	Small district	Medium district	Large district
AR improvement	2,857	2,930	3,174	138	245	317	90	192	278
AR comparison	2,816	2,913	3,208	174	198	246	129	182	254
LA improvement	2,800	3,049	2,943	178	186	207	290	222	201
LA comparison	2,868	2,860	2,951	174	171	187	256	228	192
NM improvement	3,218	2,699	2,680	416	346	419	317	201	298
NM comparison	3,056	2,534	2,656	398	330	390	303	212	256
TX improvement	3,673	3,443	2,825	188	343	221	228	274	248
TX comparison	3,523	3,361	3,218	239	267	256	245	211	233

Note. Data are from the National Center for Education Statistics, *Annual Survey of Local Government Finances: School Systems.*

Revenues. SEDL researchers recognized that resource allocation decisions are mainly reflected in expenditures; however, revenues play a role in these decisions. Therefore, local, state, and federal revenues of the 12 improvement districts were examined. Although school districts receive additional revenues from sources, these are not reported in the National Center for Education Statistics data and, therefore, are not included in this discussion.

Inspection of the revenues of the improvement and comparison districts over the five-year period indicated that 10 improvement districts received less local revenue per pupil than comparison districts. Additionally, between 1994–1995 and 1998–1999 eight improvement districts increased their total revenues more than comparison districts, nine improvement districts increased federal revenues more, and eight improvement districts increased local revenues less. None of these differences, however, were statistically significant.

In Summary

The 12 improvement districts had a focus on instructional activities evidenced in their resource allocation patterns. This focus was found in the analysis of staffing, expenditure levels, and expenditure increases in the five-year period between 1994–1995 and 1998–1999. It was not definitively seen in the shares spent on expenditures. Inspection of the 12 improvement districts and districts of similar-size showed a number of instances where the improvement districts spent more per pupil and increased their spending faster over time. Although a large number of these comparisons resulted in statistically non-significant differences between the improvement districts and districts of similar-size, several findings were significant. Specifically, the improvement districts employed more teachers per 1,000 students and had greater increases in their core expenditures over time than comparison districts. Additionally, the improvement districts had smaller increases in their non-instructional expenditures over time compared to districts of similar-size.

Research Question 3: What Allocation Practices Have Improvement School Districts Implemented That They Identify as Effective?

Analysis of fiscal and staffing patterns in high- and low-performing districts and in the 12 improvement districts indicated that resource allocation is linked to student performance

improvement. This finding is important because it makes clear that districts and schools need to consider resource allocation not simply to efficiently spend limited resources, but also because effective spending can support student performance. This section discusses findings from interviews (focus group and individual) with school and district administrators and a survey of teachers at the 12 improvement districts in order to understand how district resource allocation supported performance improvement goals.

General Reform Strategies

The resource allocation strategies that the 12 improvement districts demonstrated must be considered in the larger context of school reform strategies employed by the district. All 12 districts were clearly reform-minded and focused on raising student performance levels. State achievement test data provided the initial basis for the understanding that the 12 districts were focused on improving student performance. Results from the teacher survey and administrator interviews confirmed this focus and further clarified that districts engaged in a range of reform activities in order to achieve their goals. When asked about improvements in student performance in the last five years, a large majority of teachers (89.4 percent) agreed that their students had made improvement. More than half (52.5 percent) of these respondents reported that all students in their district made at least some progress. The other 36.9 percent reported that only some students made progress. In addition, 37.5 percent of these teachers felt much improvement had been made while more than half (51.9 percent) perceived only some improvement had occurred. Teachers' responses on the survey about student performance gains are shown in Table 4.10.

Table 4.10

Teacher Perception of Overall Student Performance Gains in Improvement Districts from 1995–2000

Responses	Arkansas	Louisiana	New Mexico	Texas	All
	Percent of teachers reporting				
Much improvement for all students	9.9	18.8	17.4	37.6	20.9
Some improvement for all students	37.4	34.3	32.0	22.9	31.6
Much improvement for some students	18.0	14.7	17.4	16.3	16.6
Some improvement for some students	27.2	22.2	19.7	12.1	20.3
No improvement	0.3	1.5	1.3	0.3	0.9
Unsure	7.3	8.6	12.2	10.8	9.7

Note. The total percent of teachers reporting for each state may not equal 100 as a result of rounding error.

Interviews with school and district administrators further revealed that the improvement districts were successful in implementing a number of strategies and practices that supported improved student performance. The 12 districts demonstrated to varying degrees the implementation of systemic and systematic school reform strategies such as: using student achievement data to guide curriculum planning, increasing the skills and knowledge of teachers, cultivating leadership at all levels, identifying and implementing research-based instructional packages, and garnering parent and community involvement. School reform efforts were often comprehensive with short- and long-range goal setting, strategies for addressing the variety of student needs across the district, and evaluation to measure effects of reform. SEDL researchers identified effective school improvement practices that represent eight general areas of practice: (1) focus on standards and benchmarks, (2) technology, (3) instructional programs, (4) at-risk programs, (5) professional development, (6) parent and community initiatives, (7) leadership, and (8) evaluation.

Focus on standards and benchmarks. In each of the four study states, state accountability systems measured the success of schools and districts based on student achievement test scores. State accountability systems also provided instructional standards and benchmarks that schools and districts used to guide curriculum development. All 12 of the improvement districts evidenced a strong focus on aligning curriculum and school/district goals and priorities to state standards and benchmarks. Additionally, all 12 districts used state standards as the basis for planning and aligning their curriculum. These standards were communicated to instructional staff through professional development and targeted training supported by the district. District leaders or teams of instructional staff worked to identify linkages between the state standards and teaching and learning occurring in the classroom. Some districts involved all instructional staff in ongoing development of curriculum, while others were more top-down in structure and created curriculum guides and benchmark checklists that teachers were trained to use in their classes. In one district, for example, subject area teams worked to align instructional materials with standards, and teachers at the secondary level created end-of-course assessments that matched state benchmarks. In another district, administrative staff worked to incorporate state standards in the form of consistent expectations for each grade level and in the creation of vertical articulation of curriculum from grade to grade.

Technology. A common focus that improvement districts shared is the acquisition and utilization of technology. According to teacher survey results, the majority of teachers (78.4 percent) in all districts reported that their school increased access to technology in order to support student performance improvement (see Table 4.11). Administrator interviews reported that all improvement districts had increased the number of computers in use. Nearly all districts applied new technology for use in the classroom. Computers ran instructional packages, allowed

students and teachers to use internet resources and develop computer skills, and provided access to distance learning opportunities. Districts also made use of technology for administrative purposes and to enhance teacher effectiveness. In certain applications, such as increasing student success in alternative education classrooms, administrators reported computers having a direct positive impact on student performance. For the most part, however, benefits of technology on student test scores was characterized as indirect. Interviewees noted that increases in technology would not result in higher scores on achievement tests, but were necessary to help students become successful in the job market.

Table 4.11

Teacher-Identified Effective Resource Strategies for Improving Student Performance

	Scope of implementation	
	District-wide	School level
Strategy for improving student performance	Percent reporting	
Increased access to computer technology	68.0	78.4
Provided more professional development for teachers	52.9	57.7
Improved programs and services for at-risk students[a]	45.3	54.3
Increased special instructional programs[b]	42.3	65.8
Reduced class sizes	30.2	39.3
Improved building facilities or maintenance	29.0	37.0
Provided needed school materials or equipment	27.6	52.7
Increased planning time for teachers	15.7	24.9
Increased teachers with more experience or higher degrees	10.1	10.7
Reduced class loads	9.6	13.1
Increased use of classroom aides	7.8	18.0
Unsure	3.9	3.6

[a] special education, English language learners, drop-out, etc. [b] reading, mentoring/tutoring, English language, etc.

Instructional programs. According to teacher survey responses, nearly all saw an increase in special instructional programs for the students in their districts. As seen in Table 4.11, teachers were less likely to attribute this increase to district-wide policy (42.3 percent) and were more likely to indicate it as a school level practice (65.8 percent). Interview information revealed

that in some instances instructional programs were instituted district-wide, however, most districts targeted programs to specific schools, grades, or subject areas or directed schools to determine their own instructional needs as part of a site-based management emphasis. Almost universally, improvement districts increased instructional programs in the areas of literacy and math. Many focused attention on elementary grades and low-performing campuses and/or those receiving Title 1 funds. In all but one district, new instructional packages to support reading and math goals were purchased and instituted. Another way in which instructional programs were emphasized in the improvement districts was through new policies that increased time on task in priority subject areas. Administrators at more than half of the improvement districts described efforts to increase instructional time for literacy and math by increasing time blocks for these subjects, integrating reading and math skills into other subject areas, decreasing non-instructional time, and eliminating distractions from instruction.

At-risk programs. Improvement districts provided a range of academic and social supports for at-risk students. A majority of teachers (54.3 percent) indicated that improved programs and services for at-risk students were provided at their schools, while 45 percent replied that these programs were improved district-wide (see Table 4.11). School and district administrators explained that extra help with instruction was funded in the form of after-school programs, summer school, or tutoring sessions. While not all districts offered all three components, nearly all offered at least one and most offered at least two. This supplemental learning focused on three key subject areas: math, reading, and writing. More than half of the districts had an alternative education program, offered support to prevent dropouts, and implemented strategies to reduce instructional time lost from suspensions. The challenges that students faced and that at-risk programs attempted to alleviate included high poverty, limited

English proficiency, high mobility, dropout risk, and teen pregnancy.

Professional development. Building the capacity of staff through professional development was practiced by all 12 of the improvement districts. As seen in Table 4.11, a majority of teachers (57.7 percent) indicated that more professional development for teachers was provided at the school level than at the district level (52.9 percent). According to interview data, districts prioritized four major topic areas for professional development: integrating standards and benchmarks, training on new instructional programs, technology, and teacher quality. All of the improvement districts funded professional development to support one or more of these priorities. In a number of districts, staff at all levels received training on how to disaggregate and use student test scores to improve performance. As standards and benchmarks were changed or added, districts provided training for teachers so they might incorporate the standards into their teaching. Subject area training was provided in math and language arts in more than half of the improvement districts. Some of this training was to help teachers address those curriculum areas in which students scored poorly on standardized tests. Other subject area training was provided to help teachers more fully implement new instructional programs. Since improvement districts were obtaining and using new computer technology during the study period, they also emphasized professional development that helped staff become proficient in using the new equipment. Some districts were able to set up training labs or hire additional technology staff to provide training and support. Training formats included seminars and workshops (both in-house and out-of-district), summer programs, one-on-one training with a content specialist, and demonstration classes.

Parent and community initiatives. Another priority area that was frequently mentioned by district administrators was parent and community involvement. Many of the districts had the

Partners in Education program that brought in businesses and community organizations to support efforts of individual schools. A district or school newsletter kept the community informed of activities and improved the image of the district. Some districts conducted outreach to parents of at-risk students, required the participation of parents in student improvement plans, included parents in school decision-making, provided parent training, held frequent meetings with parents to inform them of instructional goals and expectations, or involved parents in supporting good behavior or character education. Teachers, principals, and other administrators invested time meeting with parents, organizing parent advisory groups, preparing newsletters, forging partnerships with businesses, working with the local chamber of commerce, and gaining support of other agencies and organizations.

Leadership. Nearly all improvement districts benefited from stable effective leadership. More than half had strong, stable superintendents and most of the other districts benefited from the instructional and organizational leadership of a core group of administrators and/or principals. Qualities of effective district leaders included a clear focus or vision for the district, an ability to foresee new challenges and adapt before they became crises, an understanding of the needs of the district, and open communication with and reliance on other key district and school administrators. Evidence of supportive leadership by the school boards, however, was recorded in only four of the 12 districts. A consistent leadership strategy revealed through interviews with improvement district administrators was the ability of district and school leaders to instill ownership and greater responsibility for change in all staff. In a number of districts, teachers were said to have a high level of professionalism and participated in decision-making, instructional planning, and peer training and coaching. In other districts in which administrators felt that instructional staff needed more guidance, administrative positions were created or

redefined in order to directly support school staff through instructional leadership, coaching, and formal and informal classroom observation.

Evaluation. Almost all of the 12 improvement districts described formal or informal ways that they incorporated evaluation into their decision-making processes. Administrators mentioned a variety of evaluative methods. Districts pre-screened programs and materials using informal surveys or recommendations from other schools or districts. Districts also obtained research results published about the prospective programs and materials and/or conducted their own reviews of programs and materials using a panel of teachers and administrators. Some programs were piloted either for a short time period or in a small number of schools to gauge effectiveness before the district implemented them further. Districts also evaluated existing programs using formal evaluation of program impacts, informal observations or recommendations from staff, and assessment of their alignment with goals and priorities. Eight of the 12 improvement districts implemented testing beyond what was required by the state to use as a tool for tracking student progress. Test results identified weak areas in instruction that helped teachers modify curriculum to meet student needs. A number of districts tracked students' test results and progress mastering components of the standards. Improvement districts in Texas developed student profiles that were reviewed by teachers or teams of teachers in order to assess and address each student's needs.

Overall, the 12 improvement districts used a range of effective reform strategies to address student performance improvement at the school and/or district levels. In addition to these general reform efforts, SEDL researchers found that the 12 improvement districts also applied varied resource allocation strategies to support student performance.

Resource Allocation Strategies

A number of the resource allocation strategies identified by teachers and administrators in the 12 improvement districts were similar across sites; however, the planning and implementation of these strategies were found to be less systematic than were the general reform efforts they described. In particular, administrators infrequently mentioned the use of data and evaluation, resource needs-assessment, or cost-benefit or other analyses to plan budgets and staff allocation. Additionally, when asked whether their district often engaged in or attempted innovative practices to improve student performance, 85.7 percent of teachers somewhat or strongly agreed this had occurred. Fewer teachers, however, agreed district resources were aligned with school needs (64.5 percent) or that the district found new ways to allocate existing resources to improve student performance (66.9 percent). Only about half of teachers (53.8 percent) reported that the district evaluated spending practices to make better decisions about resources (see Table 4.12).

Table 4.12

Teacher Perceptions of Effective District Resource Allocation Practices

Practices	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
	Percent of teachers reporting			
District often engages/attempts innovative practices to improve student performance	31.1	54.6	10.6	3.6
District resource allocation decisions are aligned with school needs	10.6	53.9	24.5	11.1
District finds new ways to allocate existing resources to improve student performance	16.8	50.1	26.2	6.9
District evaluates spending practices to make better spending decisions	13.2	40.6	27.5	18.7

Interview data from the 12 improvement districts also indicated that while alignment of resource allocation to support student improvement goals did occur, it was not implemented

consistently or deliberately and usually did not receive the same level of evaluation or reflection as more general school reform strategies. Research findings did reveal, however, that discrete resource allocation practices and strategies that supported the reform process were pervasive throughout the districts. While these resource allocation practices and strategies may have lacked systemic and systematic qualities, taken as a collection of "best practices" they provide a guide for allocating resources to support student performance. Specifically, district and school staff described allocation practices around five types of resources: monetary, staff, time, physical, and parent/community.

Monetary resources. The improvement districts were, for the most part, able to support reform priorities and target resources to high need areas by effectively allocating monetary resources. Allocation of funds at the improvement districts reflected a needs-based approach. Other strategies that districts used included site-based budgeting and prioritizing spending towards specific goals. Many improvement districts were very active in grant seeking, and interviews revealed evidence of both district and campus personnel soliciting supplemental funds through private and public sources.

Needs-based budgeting was expressed as an important strategy for allocating financial resources by interviewees in nearly all improvement districts. The needs-based strategies implemented in the improvement districts varied in type and scope. Some districts determined needs at the district level, while others used district and campus input to determine needs. In one district, for example, each school was asked to submit a budget to the district detailing the resources needed to carry out an improvement plan. Those needs that could not be paid by categorical funds or outside grants were supported from the district operating funds if they could be justified as critical to the school's improvement plan. In another site, district and campus

leaders did needs assessments and drew from a mix of available fund sources to support the established goals. In one small district, teachers and principals were encouraged individually to submit requests for resources to the district with the message that if the need could be justified, the money would be found to fund them. In addition to establishing a needs-based system of budgeting resources, many of the improvement districts established a standard for need so that those requesting and allocating funds could work from the same set of priorities and so that spending goals were aligned with school improvement goals. Most often, instructional goals and spending to support strategies that improved student performance were prioritized. Some districts set up a priority list that began with instructional goals and needs and also included such areas as technology, instructional support, and facilities. Others prioritized students with the greatest need and channeled extra resources to low-performing campuses.

In order to apply a needs-based strategy, the improvement districts demonstrated that funds must be flexible and available, and that spending restrictions of different fund sources must be well understood. State funding formulas for education are generally based on per-pupil allocations with adjustments and additional dollars granted for special needs populations. State and district staffing allotments are also based primarily on per-pupil calculations. In some ways, these formulaic determinants of resource availability leave fund managers with limited flexibility to make meaningful allocation decisions. One district administrator complained during his interview that the lack of flexibility in the district's budget was a challenge. Once salaries and transportation costs were allocated at the beginning of the year, there was little left to support new programs. Categorical funding provided dollars for instructional use, however, this district found the restrictions of use confusing. This attitude, however, was not prevalent in the 12 improvement districts, and most other districts were able to effectively respond to the relative

inflexibility of district budgets by learning to use categorical funds creatively and further allowing flexibility by pooling these funds with grants and district general funds. In one district, for example, third graders needed additional literacy support so a new reading program was instituted. A portion of Title 1 funds was redirected in order to increase staff for the program, and library and activity funds were reprioritized to obtain books and materials needed for the program. This same district was able to fully support professional development by supplementing district staff development funds by pooling portions of federal grant funds (Titles 1, 2, 4, and 6 funds).

Another district zeroed out departmental budgets at the beginning of each year and, based on current priorities, allocated dollars from the full range of available fund sources to rebuild the district budget. Some districts described that a reallocation of resources happened annually during the budget planning process when staff considered the goals of the district and the costs of programs to be implemented. One district described using an accounting method that informed school and district staff how money was spent on instructional programs during the previous year so that they could consider their new instructional priorities and how they might redirect spending for the next year. Although the improvement districts applied creative budgeting strategies that created flexibility in spending and also helped them assess their use of monetary resources, none of the improvement districts used comprehensive cost analysis tools such as cost-benefit and cost-effectiveness studies. Also, these districts did not demonstrate ways to evaluate how their spending patterns and practices impacted student performance. This was primarily due to the lack of data needed for such analyses or lack of expertise among school and district staff to implement them.

Many of the improvement districts continually sought special grant funds or donations to

support additional needs such as music programs, computer equipment, staff development, and at-risk programs. Grant seeking was important to all improvement districts and allowed them to obtain traditional grant funds, such as state categorical and federal compensatory education funds. Some districts also encouraged district and school level personnel to pursue outside monies to support new programs, materials, and facilities. Two districts that were especially successful in gaining outside resources through grants hired the services of a professional grant writer. Other districts benefited from community foundations that were established to fund special projects and support teachers or other staff positions.

A number of improvement districts emphasized the importance of setting clear goals and priorities that in turn guided resource allocation. Interview results revealed that school and district improvement plans often provided the basis for resource decisions. In the current era of accountability for results, improvement planning was closely tied to raising student test scores. In one district, school improvement plans were formulated based on test results that identified areas of weakness in student performance. All activities were aligned with the goals established in the campus improvement plan and all spending supported those goals. Another district used goals and priorities to determine spending and found that by communicating standard criteria for approving or denying budget requests they were able to help dispel a perception of financial scarcity in the district.

Most of the 12 improvement districts also relied on collaborative decision-making to plan and allocate resources. Collaborative partners included district and school administrators as well as staff, parents, community members, other school districts, and education service centers. In one district with a site-based management structure, budget decisions were left up to campus personnel, although lump sum allocations to each campus were based on a district formula. In

another district, a budget committee comprised of school and district administrators, parents, and community members decided on spending for special projects. In other districts, budgets were decided among groups of district administrators. A chief financial officer at one district worked closely with principals to plan budgets and accommodate new needs for spending.

Staff resources. The process of school improvement is a change process. The 12 improvement districts demonstrated that in order to make successful changes in student performance, staff must have the capacity (knowledge and skills), willingness, and support to change as well. The improvement districts implemented strategies to enhance the application of staff resources to the improvement process and to increase the capacity of those staff.

According to an analysis of staffing data, the majority of improvement districts employed more teachers per 1,000 students than comparison districts and increased the number of teachers faster over time. A majority of teachers at the improvement districts (90 percent) reported that their schools or districts did not increase teachers with more experience or higher degrees to improve student performance (see Table 4.11). These potentially conflicting findings might be explained by district administrators' descriptions of staffing changes that were made to support student performance. The addition of teachers with more experience was not a major focus; however, building the capacity of current staff, reallocation of staff, addressing teacher retention, and enhanced instructional leadership was practiced by nearly all improvement districts. In an era of teacher shortages, the 12 improvement districts directed significant resources to professional development, increasing the number of certified teachers, limiting the use of paraprofessionals, and offering compensation incentives to attract and retain teachers.

Professional development was a critical component for supporting the success of teachers. Staff time, stipends, substitutes, travel funds, trainer fees, materials, parent

involvement, and facilities were the types of resources that were needed to implement professional development strategies for these districts. In order to provide these resources many of the improvement district administrators explained that spending for professional development increased. Districts also partnered with training providers, used state-provided resources, and obtained grant funds to support professional development. Partner agencies that provided training for district staff included state departments of education, other schools/districts, education service centers, local higher education institutions, and computer companies (for technology training). State resources included days that the state set aside for professional development and, in New Mexico, legislated support for professional development on new testing standards. Grant funds that were applied to professional development included Eisenhower Mathematics and Science funds and federal compensatory funds. Many districts increased the level of resources targeted to professional development by supporting professional development opportunities beyond the limited days set aside by the state, creating a staff position to direct training, and providing on-site training facilities. Teacher responses on the survey seemed to confirm that many resources were put into professional development. Few teachers (14.2 percent) identified the lack of professional development as a barrier to improving student performance (see Table 4.13).

Many improvement districts reallocated staff and enhanced instructional leadership in order to increase staff quality. Due to the costs involved with increasing staff and the fact that staff allocation is tied to student enrollment numbers, many of the staffing changes implemented to support student improvement involved the reallocation of existing staff. Staff changes, for the most part, directly supported district instructional goals of improving performance in literacy and math. New positions at schools were created such as subject area specialists, master teachers, or

mentor teachers. These teachers, often selected from the existing teaching staff, were assigned to teach specific content or provide guidance to other teachers on successful teaching strategies. In one district, for example, a literacy specialist position was created at low-performing elementary campuses in order to facilitate the instructional curriculum developed for literacy. Staff were reassigned to act as literacy specialists in some schools, and state funds for high poverty schools were used to add specialists in others. In another district, one staff described the process of staff reorganization that occurred at the schools, "they don't seem to change our salaries, but they do change our job descriptions". Both schools and districts created instructional coordinator positions to support learning. District-wide positions were created to address the instructional needs in key subject areas (math, literacy, science) or grade levels, support the use of technology, and coordinate parent involvement or community services. Also, instructional roles were added to the duties of all staff. For example, counselors were assigned to provide test-taking skills or custodians to read to students.

Interview data affirmed that the 12 improvement districts had effective leadership and that administrators practiced effective leadership strategies. Further, more than 80 percent of teachers responded on the survey that they saw no lack of school leadership in their improvement district (see Table 4.13). To address the needs of the poorest performing schools in some districts, leadership changes were made. In one district, assistant principals were added to low-performing schools in order to allow the principal to focus on instructional leadership. One highly effective school principal at an improvement district was moved to a low-performing school on a temporary basis in order to create an environment of high performance. In another district, principals were challenged to achieve a high level of student performance in their schools within three years with the threat of removal if the goal was not met.

The use of paraprofessional staff was not predominant among improvement districts. Although paraprofessionals were used in some specific applications (special education), the focus on encouraging a high-quality certified teaching staff meant that many districts worked to replace education aides with certified teachers or provide incentives for them to gain certification. In one district, most teacher aides were eliminated in order to fund professional development for teachers.

In order to cultivate teacher quality and address recruitment and retention, many of the improvement districts used monetary and non-monetary incentives. Salary levels were prioritized at some districts and bonuses for high student performance were provided. The goal at one poor rural district was to attain 100 percent certified teachers, and administrators worked to keep teachers motivated, informed, and well supplied. Teachers participated in a formal cycle of evaluations and each teacher had an individual growth plan. A mentoring program for new teachers was put into place at another district and funds were found to pay mentor teachers and substitutes for that program.

Time resources. Time is another critical resource for schools and districts working to improve student performance. Interview respondents often mentioned time as a resource necessary for implementing strategies for improving student performance. Activities related to increased professional development, collaborative planning strategies, increased time on task, integrating new curriculum standards, and data collection and analysis all required a time investment by administrators and teachers.

A common approach to gaining time used in the improvement districts was to depend on extra hours teachers and administrators were willing to volunteer to pursue reforms. Increased demands on staff at all levels and increased time spent in training or development activities

meant that districts had to find ways to compensate staff for their extra time or that staff had to donate volunteer hours. For example, one principal of a school that was low performing explained that restructuring a failing school took a lot of extra time and energy. She and her staff volunteered their own time during the school year and summer months to achieve student performance gains. Their school is no longer low performing. Staff needed extra time for assessing student needs, planning, curriculum development, reconfiguring staffing assignments, improving and redesigning learning environments, setting up new instructional materials, and other restructuring activities.

While most districts admit to some reliance on the volunteer time of their staff in order to achieve reform goals, they also describe more efficient ways of allocating time resources. In order to compensate staff for their time and to provide other necessary supports such as substitutes, trainer fees, and materials, districts prioritized spending in these areas in the district budget or found ways to use categorical funds to support them. Administrators at improvement districts also revealed ways that time for professional development could be stretched. Some of the improvement districts, for example, worked to build internal expertise so that school or district personnel could provide targeted assistance at school sites or classrooms, reducing the time teachers needed to attend training sessions. Others limited the type of training that staff attended, using district priorities and goals to measure the value of training provided. A few of the 12 improvement districts reduced classroom time for teachers so they could review achievement data, align curriculum, and implement new accountability requirements. One district instituted a common planning period for elementary grades and other districts instituted block scheduling that helped create extra time for teachers.

Physical resources. Material resources, such as computer hardware and software and school facilities, indirectly supported student performance improvement. Costs for new technology and facilities were high, usually requiring supplemental funds outside of the district operating budget. These expenditures were often of lesser priority than spending in instructional areas, such as teacher salaries or academic programs for low-performing students.

Increases in technology spending were high for many of the improvement districts during the study period. However, interviewees could claim few direct benefits of technology on student achievement gains. One way to reconcile the use of resources for these technological resources is to understand that during the study period, funds for technology were more readily available for schools to install necessary infrastructure, obtain computer equipment, train teachers and administrators, and more fully incorporate technology into the classroom. Federal funds available via several sources, state incentive money, and private donations enabled districts to greatly increase their access to technology without taking away from general operating funds. Many improvement districts took full advantage of available funds by writing grants, partnering with high tech companies, and directing the fundraising efforts of parent-teacher associations and the general community. One district exemplified how technology resources were obtained and applied from 1995 to the present. This district acquired infrastructure and hardware to equip every classroom with computers and each campus staffed a technology specialist to support use of the computers. State and federal telecommunications grants funded the technology infrastructure and the district used a middle school grant and technology grant from a corporate foundation to add equipment and training. A training lab was established using grant money so that teachers could obtain sufficient training in the new technology. Certain schools within the 12 improvement districts benefited from private donations, parent, and activity funds. One school's

parent-teacher association raised $50,000 to support new technology and another school garnered more than $500,000 in private donations to support technology programs.

New and expanded building facilities were another focus of spending during the research study period at nearly all of the improvement districts. New schools, classrooms, and other facilities were added and administrators explained that although this had an indirect effect on student performance, improved facilities did improve the general learning environment and were an important motivator for students and staff to excel. More than half of the districts were able to obtain outside funding for building projects through facilities grants and bond/millage money. A few districts used fund balance dollars that had accumulated over the years.

Parent and community resources. Another priority resource that was frequently mentioned by district administrators was parent and community involvement. District initiatives were implemented to increase parent and community involvement in schools and to gain general support for the district from the community at-large. The benefits identified by administrators were two-fold. First, increased parent and community involvement supported the success of individual students. Students benefited from parent and community volunteers who tutored or mentored, from programs that encouraged parent involvement in their child's learning, and from special programs or services provided by local businesses or organizations. Second, parent and community involvement supported schools and districts by raising funds, providing in-kind services, and giving volunteer time, as well as in more general ways such as expressing support for tax increases and community recognition of education successes.

Some improvement districts also benefited from the application of community resources to support at-risk programs. Some districts took advantage of grant programs for special populations and partnered with community organizations and businesses. In one district

community support was critical for a number of services to students: (1) the court system worked closely with schools to curb truancy; (2) support from existing social service providers was leveraged for services to pregnant teens, dropout prevention, and counseling/mediation for high school students; (3) local businesses provided mentoring; and (4) the local vocational education provider offered career preparation. In another district, retired teachers, permanent substitutes, and parents provided tutoring during and after school. Summer enrichment programs were supported by local businesses.

In Summary

The findings show that the improvement districts implemented a range of reform activities to improve the performance of their students and used efficient and effective resource allocation strategies to support those reform efforts. Further, they provide the basis for a deeper understanding of how districts might better link resources to student performance. Two key areas of resource allocation were uncovered through this analysis. First, effective allocation is based on successful alignment of district goals, reform activities and approaches, and fiscal and non-fiscal resources. As the improvement districts evidenced, creative and responsive allocation of funds, staff, time, physical, and parent/community resources that were guided by clear goals could better support the implementation of reforms. Second, linking resource allocation more directly to student performance may require districts to employ a systematic approach to allocation. Cost-benefit and cost-effectiveness analyses as well as evaluations of how spending patterns and practices impact student performance were not part of the improvement districts' allocation strategies. Lack of data and expertise generally prevented districts from using these methods. Specifically, the analysis revealed very limited evidence that districts investigated how their use of resources directly affected student performance.

Research Question 4: What Barriers and Challenges Have Improvement School Districts Faced in Allocation Practices?

According to interview and survey data, barriers and challenges were revealed that hindered the effective allocation of resources in the improvement districts. A number of allocation challenges identified by administrators were seen as resolvable, such as the inflexibility of categorical funds or the need to build staff capacity. Other barriers and challenges, however, remained unresolved and negatively impacted the ability of districts to effectively allocate resources to support performance goals, such as within-district inequities, fluctuating revenues, inability to raise salaries, and needed training time. While teachers identified additional barriers and challenges that administrators did not often mention, both viewed state requirements, especially those connected to the accountability system, as ongoing challenges.

Within-district resource inequity was one challenge administrators described as impacting resource allocation. At one district, administrators described that districts that work towards specific goals with limited funds will face this challenge. This was evidenced in many of the improvement districts. A common strategy for improvement districts was to identify areas of poor performance and prioritize resource allocation in order to improve those areas. Specific grade levels, subject areas, and/or schools received increased staffing, funding, training, special programs, and support from administrators. Although this ensured that attention focused on areas of greatest need, it also resulted in inequity in the distribution of resources. Low-priority subject areas and programs to enhance opportunities for middle- and high-performing students did not receive resources to the same level as programs for low-performing areas. Another source of inequity within districts that was mentioned by several interviewees was the varying ability of schools within a district to raise activity funds. Some parent groups, parent-teacher associations,

and community groups were more successful in providing funds, volunteers, and in-kind resources for their schools. Since, for the most part, schools had autonomy in raising and directing their own activity funds and local volunteers, some schools received a substantial amount of support while others did not. Improvement districts have not found a way to equally distribute school generated resources, especially for fear of discouraging fund raising efforts.

Another barrier identified was fluctuating revenues. A few interviewees explained that since education revenues constantly change from year to year, staff sometimes try to protect their own budgets by padding cost estimates or spending quickly for fear that budget cuts might be announced later in the year. However, by using such strategies as increasing the flexibility within district budget categories and communicating the prioritization of resources on focused areas of need, many improvement districts have been able to curb a mentality of scarcity among staff with regard to funds in the district. At the district level, administrators realized that funding levels cycle unpredictably, and in order to be prepared for large decreases, some kept a large fund balance. Factors that contributed to revenue changes included, declining enrollment, state funding changes, local economic conditions, and unexpected expenditures.

District administrators also explained that they face a constant struggle to keep salaries competitive in order to attract and retain quality staff. On average across the districts, teachers identified the lack of competitive salaries as one of the top three barriers to student performance improvement (see Table 4.13). However, when examining teacher opinion on salaries as a barrier, SEDL researchers found that variations by district were evident. For example, in one district, more than 90 percent of teachers agreed that their district lacked competitive salaries, while in another district only about one-third of teachers agreed. This variation also reflected the differing goals that improvement districts set around salary levels. In some districts,

administrators prioritized keeping salaries among the highest in the state. Other districts tried to stay at the state average and others competed with nearby districts in setting salary levels. Independent of their goals for teacher compensation levels, however, many administrators at improvement districts lamented their inability to increase salaries. In one district, administrators stated that increases in salaries would mean that district funds would have to decrease in other instructional areas. Health insurance costs were rising as well, further curtailing districts' abilities to raise salaries.

Table 4.13

Teacher-Identified Barriers and Challenges to Improving Student Performance

Barrier/challenge	Percent reporting
Large class sizes	53.6
Lack of competitive salaries	49.9
Limited planning time for teachers	49.6
Limited school materials or equipment	36.1
Ineffective state policies and mandates	32.8
Large class loads	32.5
Ineffective district policies and mandates	29.6
Limited access to computer technology	29.0
Insufficient programs and services for at-risk	26.1
Poor building facilities or maintenance	23.1
Lack of community resources	22.0
Lack of special instructional programs	18.4
Lack of leadership at the school level	18.3
Lack of experienced teachers	17.9
Insufficient professional development	14.2
Limited access to student data	7.1
Unsure	10.8

Time needed for training teachers and other instructional staff was also identified as a barrier. The time needed to provide professional development for teachers was in conflict with the need for teachers to be effective in their classrooms. Time was difficult to find for training and some teachers preferred not to miss class in order to attend trainings. Administrators noted

that capacity building during the school year meant that essential teaching skills and knowledge were being gained at the same time they had to be applied in the classroom. One district administrator likened the conflict to an airplane analogy: professional development is "like trying to build a plane while the thing's up in the air".

Teacher survey responses underscored two additional challenges for effective allocation of resources at the improvement districts. Teachers indicated that one of the top three barriers to improving student performance they faced was limited planning time (see Table 4.13). A majority of teachers indicated that neither the school (75 percent) nor the district (84 percent) provided increased planning time. Very limited strategies for increasing the individual planning time for teachers were implemented by improvement districts, according to administrator interviews. While block scheduling created time for necessary grade level or subject area meetings, tutoring, curriculum development, and training, none of the 12 improvement districts were able to provide sufficient individual planning time for teachers.

Another barrier to achieving student performance improvements identified by more than half of the teachers (53.6 percent) was large class size (see Table 4.13). Class size reduction, although valued by administrators as a worthwhile strategy, was not implemented on a wide scale. The cost factor may have been a barrier to prioritizing the strategy and the lack of measurable impacts with respect to the high costs may have also contributed to its limited application.

A barrier consistently described by both administrators and teachers was state mandates. Although most districts were able to incorporate the needs of new accountability systems with relative success, they also faced challenges associated with state requirements. A few administrators complained that test results often arrived late. Since disaggregating data and

planning for identified needs should ideally be done before money and other resources are allocated for the new school year, late arriving test results forced districts to make poorly timed staffing and budget adjustments. Also, administrators explained that they were sometimes hesitant to fully implement state mandates since requirements often change and each change requires a new investment of resources. They reiterated that the change process often required them to allocate staff resources to make appropriate shifts in leadership or teaching practices. Also, changes in such requirements as testing criteria required staff to reconfigure analysis systems in order to effectively make use of the new information, and many felt ill-equipped to do this in a timely fashion. Some state and/or federal requirements were viewed by administrators as unsupported mandates. Mandates that required the addition of programs or services (e.g., limiting social promotion, increased benefits for employees, data disaggregation) without guidance on implementation and without sufficient funding created challenges for some improvement districts.

In Summary

The barriers and challenges to effectively allocating resources to support district goals identified by district and school staff were important for three reasons. First, the improvement districts did not indicate that an overall lack of funding was a major obstacle. More specifically, funding challenges that were mentioned included within-district inequities, unpredictable fund sources, and low industry-wide salary levels for teachers. Second, time was an increasingly scarce resource due to increased demands on all staff. Developing staff skills and knowledge to support new state standards may not occur early enough in the process to meet students' needs, and teachers are challenged to find time away from class for training and individual planning. Third, the state's role in supporting education reform created some challenges for improvement

districts. Many districts were sensitive to changes in state expectations and requirements and felt changes should better accommodate the resource, training, and timing needs of schools and districts.

V. Conclusions

This study examined the connection between resource allocation and student performance. Major findings evidenced that resources and outcomes are related, demonstrated that resource allocation strategies that align to school improvement activities help support student performance, and presented barriers and challenges that improvement districts face in allocating resources. Findings underscore the importance of prioritizing the allocation of monetary and non-monetary resources in a school reform effort.

This section briefly summarizes the research findings and discusses the implications, recommendations, and areas for further research identified by this study. Research findings indicate that education decision makers should consider the implementation of a systematic approach to resource allocation that directly supports student improvement. Six steps that should be included in that process are outlined. Also, since state and district education decision makers have important roles to play in supporting a systematic approach to linking resources and student achievement, specific recommendations for these decision makers are offered. Finally, the section concludes with a discussion of additional questions on resource allocation that arose from the study and the need for future research to answer those questions.

Summary of Findings

SEDL researchers examined the resource allocation patterns of high- and low-performing districts in Arkansas, Louisiana, New Mexico, and Texas. The analysis revealed that higher performance was associated with higher spending for instruction and core expenditures, greater numbers of teachers per 1,000 students, and with lower spending for general administration and administrative staff. For example, in all four states, high-performing districts spent more on instruction as a share of current expenditures while in three states high-performing districts spent

more on instruction per pupil and employed more teachers per 1,000 students. When the comparisons controlled for socioeconomic status and other demographic factors, the differences in resource allocation between the low-performing and high-performing groups lessened; high-performing districts in only two of the four states spent more on per-pupil instruction and had greater numbers of teachers per 1,000 students.

Recognizing the strong relationship between student performance, poverty, and race/ethnic status, researchers also examined twelve districts from the larger sample that demonstrated improvements in student performance over time and also had high-minority enrollment and/or high levels of student poverty. Findings from the comparative analysis of the improvement districts and districts of similar size revealed that at least eight of the twelve improvement districts spent more per pupil in instruction related activities and employed more teachers per 1,000 students. Also, they made significant increases in these areas over the five-year period than the comparison districts. Further, the improvement districts were found to spend more per-pupil in core expenditures, student support, and instructional staff support. At the same time, the 12 improvement districts increased expenditures for non-instructional services significantly less over the five-year period than comparison districts.

Findings also revealed that the improvement districts generally did not have more revenues and did not increase these revenues over time more than the comparison districts. Although the analysis did not consider the role of non-governmental sources of revenue, the findings seem to indicate that improvement districts had roughly equivalent funds to comparison districts yet allocated more to instructional areas. These results also appear to confirm the spending patterns found in the analysis of high- and low-performing districts. It is important to emphasize that the improvement districts had low SES and/or high-minority student populations

and that these factors are strongly linked to student performance. However, the analysis of spending patterns of improvement districts showed that resource allocation is also an important variable to consider in understanding how to effectively support student performance improvement.

In addition to examining whether student performance and resource allocation are linked, this study also identified district resource allocation strategies and practices that appeared to support improved student performance. According to administrator interviews and teacher surveys from the 12 improvement districts, strategies for allocating monetary, staff, physical, time, and parent/community resources were applied in an effort to support student performance improvement. The allocation strategies appeared to reflect a general environment of reform that existed in the improvement districts. Researchers, however, were not able to identify a systematic approach to resource allocation at the 12 districts that was planned, deliberate, based on evaluation and data analysis, and directly addressed student performance goals. Still, the collection of resource allocation practices described by district and school administrators in the improvement districts, does help further the dialogue on how spending impacts student success. Furthermore, these practices, along with a better understanding of spending patterns in high- and low-performance and improvement districts, contribute to a framework for education decision makers who wish to implement a systematic resource allocation process to support student success. Also, the findings inform specific recommendations that must be considered by state and local policymakers as they plan for effective resource allocation.

Implications and Recommendations for State and Local Policymakers

Major findings from this research indicate that states and school districts need to consider the allocation and application of fiscal and non-fiscal resources as an integral part of the school

reform process. Successfully doing this will enhance and support student performance gains. This research provides important lessons for state and local policymakers as to how they can and should connect the allocation of educational resources and student performance goals.

Systematic Resource Allocation

Effective resource allocation starts with the alignment of goals, priorities, and activities of education decision makers at all levels: legislative bodies, state education agencies, school boards, district and school administrators, teachers, and parents. Additionally, national priorities are an increasingly important consideration with the greater accountability included in the recently passed *No Child Left Behind* legislation. To effectively support student performance, stakeholders at all levels should understand how to consider resource allocation within a school reform process. Findings from this research suggest six basic steps to implementing a systematic resource allocation process.

1. Before resource allocation decisions are made, identify needs, priorities, and goals of all students by examining disaggregated data on student performance outcomes. Also, consider the environmental and contextual circumstances of the school, district, or state, and examine research-based information on effective reform strategies. Based on this data, identify a plan for improvement.
2. Clearly communicate the needs, priorities, goals, and strategies in the improvement plan to all stakeholders. Develop leadership and decision making structures that will support the allocation of resources to the improvement efforts. Build necessary human capacity by developing skills of stakeholders in financial management, evaluation, and use of data.
3. Understand what resources are available, whether they be monetary, staff, physical, time, parent/community, or other resources. Also identify ways that existing resources might be

used more efficiently, additional resources might be obtained, or fund sources might be pooled for greater effectiveness. After assessing the fiscal and non-fiscal resources available to support the identified goals and strategies, allocate resources based on identified needs and priorities, not tradition.

4. Collect timely, comprehensive, and detailed school level data that connects information on resources for all educational objects, programs, subject areas, grade levels, and staffing configurations to student performance outcomes.
5. Evaluate whether resources are targeted to performance improvement practices and produce cost-efficient progress. Conduct cost analysis or cost-benefit studies, evaluate the impact of programs and services, and monitor the equity of distribution of resources. Use the results to modify allocation strategies.
6. Communicate and share effective resource allocation practices by establishing formal and informal mechanisms for exchange within and across levels of education administration.

Effectively linking resource allocation to student performance and implementing the process outlined in these six steps requires much effort at all levels of the education system. Findings from this research provide some specific recommendations for state and district level decision makers as they seek to improve student performance through resource allocation.

Recommendations for State Decision Makers

- State policies and priorities must address resource needs if all students are to succeed. Since states have the primary responsibility for ensuring that students receive equal and adequate access to education, state policymakers need to ensure that resources are available for schools and districts to support expected levels of achievement. SEDL researchers found that increased spending in certain instructional areas was linked to higher student performance.

Improvement districts targeted fiscal and non-fiscal resources to certain subject areas, grade levels, or high-need schools. While in some instances this targeting of resources was possibly due to an increase in funds or other resources, the improvement districts also had to reallocate funds away from non-priority areas to support instructional goals. The question of whether districts should seek additional resources to increase spending in key instructional areas or whether funds should be taken away from other areas is important. Finding the appropriate path to take is particularly critical in light of the potential of creating inequities between districts due to varying capacities to raise revenues outside of traditional streams and within district inequities resulting from the targeting of resources to the lowest performing schools. States should investigate whether adequate funds are available to schools to support instructional goals. If shortages exist, district and state policymakers need to work together to determine how to increase spending in priority areas and whether reallocation of existing resources is a viable option.

- Resource investments that raise the capacity of teachers and administrators are critical to successful reform. Improvement districts were limited in their ability to increase staff allocations since allotments are based on per-pupil formulas. Also, in an era of teacher and administrator shortages, research findings indicated that districts needed to allocate teachers and administrators of varying capacities. States need to provide guidance to districts in ways that they can best support their staff through strategies such as capacity-building and prioritizing resources towards professional development, realigning staffing structures to accommodate the strengths and weaknesses of existing staff, and finding ways to recruit and retain quality staff through compensation and support systems.
- A responsive data management system and evaluation tools are needed to effectively link

resources to student needs. Performance data enables decision makers to identify areas of need and fiscal data enables decision makers to understand whether and how much resources are allocated to those areas of need. Evaluation can also support the effective allocation of resources. If staffing, funds, or other resources are applied or allocated to address identified needs, periodic assessment of the effect of the allocation will help ensure a proper use of resources. States should support the collection of timely and detailed fiscal and performance data and should train local decision makers in the use of data for tracking spending and analyzing the effectiveness of spending. Data on resources should be tied directly to specific educational programs, staffing configurations, and other improvement strategies so that cost-benefit and other analyses can be conducted.

- In order to link resource allocation to improvement goals, those improvement goals must first be clearly identified and effectively linked to effective reform practices. The improvement planning process is critical to successful resource allocation and states should provide training and guidance so that poor performing schools and districts are able to (1) use student performance data to identify needs and priorities, (2) examine research-based information in order to identify the strategies and practices that would best address their needs, (3) communicate the goals and strategies in their improvement plan to all stakeholders, and (4) evaluate the effectiveness of reform strategies and modify both strategies and resources that support them if needed.
- State policymakers can help districts overcome the barriers they face in allocating resources to support student performance. They should provide timely and accurate fiscal and performance data to support planning and budgeting before the school year begins. In one of the study states, for example, state policymakers prioritized the timely delivery of student

performance data so that districts could use summer months to plan activities and budgets for the coming year. Additionally, state policymakers should integrate resource allocation in the school/district improvement planning process to provide guidance to educators on how to link spending to instructional needs; make sure that teachers, administrators, and school boards receive advance notice of important changes in requirements or policies so that they might plan for and retool staff and services appropriately; and ensure that additional federal and state required programs and services are appropriately funded. Further, they should assist districts in raising the level of staff salaries and help them implement compensation systems that are appropriate for their staffing needs as well as address the lack of individual planning time for teachers.

Recommendations for District Decision Makers:

- The alignment of resources and school improvement goals was a recurrent theme in this analysis. Improvement districts demonstrated that resource allocation decisions involved identification of specific student performance goals and application of fiscal and non-fiscal resources to achieve them. Aligning resources to improvement goals is a multi-dimensional process and not simply a reflection of expenditure line items or intentions stated in an improvement plan. District decision makers should implement resource allocation strategies that are based on identified needs. School and student needs should be established using input or collaboration from parents, teachers, and administrators who have access to achievement data. Once clear goals and objectives for student success are identified, they must be clearly communicated so that appropriate district resources can be allocated to support them at the classroom, school, and district levels.

- The financial management skills of school and district administrators impact the ability of districts to make the best use of limited funds. Findings from the study revealed that districts that were most successful in allocating resources understood the limits and areas of flexibility of district resources. Revenue streams were limited and often based on state or federal formulas, categorical funds with spending restrictions, and bond or grant funds often tied to certain spending areas. Analysis of spending patterns of the improvement districts exemplified the benefits of examining performance and fiscal data longitudinally to evaluate effectiveness. Financial managers that can create flexibility in funding, provide administrators with information on spending patterns and analyses of how spending supports district priorities, and reallocate funds as needs arise from year to year or within a school year greatly support effective resource allocation. Further, financial managers and other district decision makers should be familiar with and understand state and federal funding regulations. Districts should ensure that administrative staff develop financial management skills or use the services of accountants or financial analysts as needed to achieve these goals.
- Grant seeking is one way for districts to gain supplemental funds for high-need areas. Grant funds can often be pooled with district operating funds to support added staff, materials, and programs. Grant seeking may not result in the addition of funds that directly support student performance needs, however, they may allow district operating funds to be reallocated away from the programs or services that receive grants to support high need areas. Districts should develop grant-writing skills within their staff. However, districts should also investigate the limits of potential grant sources before committing the time resources necessary for application and understand which funds will most directly support their goals and priorities.

- This research also underscores the idea that one size does not fit all with respect to approaches to effective resource allocation. For example, in order to support students that have social service needs as well as instructional needs, decision makers may need to rely on community resources more heavily or allocate staff resources differently. Also, site-based budgeting may not be a viable approach for schools that lack administrative leadership. Decision makers at smaller districts may identify a need for external support to improve fiscal management, evaluate spending practices, or implement effective grant seeking. In planning an approach to allocating resources, district decision makers must consider the specific circumstances of students, schools, and the district as a whole.
- Parent and community involvement is a resource that can play a key role in the success of students. The success with which schools and districts encourage parent and community involvement and the structures that exist to apply the resources they offer can add great value to a school reform effort. Parent and community involvement results in additional funds, materials, equipment, volunteers, and support of school programs and initiatives. Failure to garner parent and community support may result in an adversarial relationship in which the public becomes a liability rather than a resource for the district. Districts should support school level efforts to build parent and community support and develop district-wide programs that encourage the participation of these outside resources. District leaders can also play an important role in increasing public support by communicating effectively regarding its goals and accomplishments, establishing district linkages to the local business community, and partnering with local initiatives and agencies that serve the needs of children and families.

- Finally, information on school and district resource allocation practices, resource management tools, fiscal data collection and analysis methods, and ways that states and districts can overcome common resource allocation barriers must be shared. Districts should find opportunities to interact with their peers to communicate successful resource allocation practices or seek guidance on barriers or challenges they face. States can also support this effort by providing mechanisms for districts to share information and practices and states should identify and consider practices in other states within their region or nationally.

Areas for Further Research

The findings of this study answered important questions about the relationship between resource allocation and student performance and provided guidance to state and local decision makers on how they might implement a process of resource allocation to support performance improvements. However, further research on this topic is needed in order to investigate additional questions and further advance the understanding of how to best use resources in educational reform.

The relationship between overall resource allocation and allocation within certain categories or for certain practices is still not well understood. In other words, future research can clarify whether successful districts have more resources overall, spend more resources overall, or spend more resources only within specific categories and for specific practices. Future research can also address and evaluate resource allocation trade-offs, e.g., between investing resources in hiring more teachers versus hiring teachers with higher qualifications.

Although some triangulation between quantitative and qualitative data was attempted, this study did not fully resolve the question of how changes in staffing and fiscal patterns relate to school improvement efforts. Future studies may connect these two sources of information by

investigating resource allocation as tied directly to specific educational programs and intervention strategies. Similarly, future research can answer important questions about the reallocation of resources by integrating both sources of information and tracking changes in allocation for different expenditure categories and for different district practices.

Another important area that future research may address is the relationship between current expenditures and expenditures for capital outlay, equipment, technology, and facilities. Although these areas have traditionally been examined separately, schools and districts must make decisions that address both. A related issue is the role that non-traditional and outside sources of funds play, since these resources are often used for such large and one-time investments. The question of how these resources and expenditures are related to student performance is also of importance.

This study described the resource allocation patterns of high-performing districts and districts with student improvement over time. However, it was beyond the scope of this research to investigate the causal relationship between resource allocation and student performance. Future studies may clarify how changes in resource allocation are causally related to improvements in student performance, and will be able to make important recommendations about effective resource allocation practices that schools and districts can implement to help all students succeed.

The effective resource allocation practices and strategies demonstrated by the improvement districts represented a collection of best practices that in sum did not reveal a systematic approach to linking resources to student performance. Additional data collection and analysis need to be performed in order to further develop a comprehensive guide to allocating resources to support student performance. Additional details regarding successful practices,

research-based analysis tools, financial management strategies, data collection, and evaluation methods should be combined to help schools and districts approach resource allocation systemically and systematically along with other reform efforts.

Districts face barriers and challenges to effectively allocating resources that hindered the success of their reform efforts. Ways that state and district policy can support efforts to address those challenges need to be identified in greater detail and developed through further investigation.

In Closing

The results of this study confirm that a there is a relationship between resource allocation and student performance. Researchers found that successful districts (i.e., high-performing districts and districts with student performance improvements over time) allocated more resources within specific instruction-related spending categories. Successful districts also allocated fiscal and non-fiscal resources in order to directly support a process of school reform. These findings are important for education decision makers at all levels, emphasizing that wise use of resources not only makes financial sense but also has implications for student success. Research findings also make clear that schools, districts, and states can and should implement a systematic approach to the allocation of fiscal and non-fiscal resources. The findings, implications, and recommendations contained in this report represent a first step in developing such a systematic approach. Future efforts towards connecting resource allocation and student performance at the levels of research, policy, and practice are necessary. Such efforts will increase our understanding about the components, limitations, and impacts of integrating systematic resource allocation into a school reform process, and help achieve the goal of ensuring high levels of success for all students.

References

Adams, J.E., Jr. (1997). Organizational context and district resource allocation: Does the setting matter? *Journal of Education Finance, 23*, 234-258.

Ballou, D. (1998). The condition of urban school finance: Efficient resource allocation in urban schools. In W.J. Fowler, Jr. (Ed.), *Selected papers in school finance, 1996* (pp. 61-84). Washington, D.C.: National Center for Education Statistics.

Chambers, J.G. (1995). Public school teacher cost differences across the United States: Introduction to a teacher cost index (TCI). In W.J. Fowler, Jr. (Ed.), *Developments in school finance, 1995* (pp. 21-32). Washington, DC: National Center for Education Statistics.

Chambers, J.G. & Parrish, T. (1994). State-level education finance. In *Advances in educational productivity* (pp. 45-74). Greenwich, CT: JAI Press.

Coleman, J.S., Campbell, E.Q., Hobson, C. J., McPartland, J., Mood, A.M., Weinfeld, F. D., & York, R.L. (1966). *Equality of educational opportunity*. Washington, DC: U.S. Government Printing Office.

Ferguson, R.F. (1991). Paying for public education: New evidence on how and why money matters. *Harvard Journal on Legislation, 28*, 465-497.

Goertz, M.E. & Duffy, M.C. (1999). Resource allocation in reforming schools and school districts. In M.E. Goertz and A. Odden (Eds.), *School-based financing* (pp. 215-244). Thousand Oaks, CA: Corwin.

Greenwald, R., Hedges, L.V., & Laine, R.D. (1996). The effect of school resources on student achievement. *Review of Educational Research, 66*, 361-396.

Grissmer, D., Flanagan, A., & Williamson, S. (1998). Does money matter for minority and disadvantaged students? Assessing the new empirical evidence. In W.J. Fowler, Jr. (Ed.), *Developments in school finance, 1997* (pp. 15-30). Washington, DC: National Center for Education Statistics.

Hanushek, E.A. (1986). The economics of schooling: Production and efficiency in public schools. *Journal of Economic Literature, 24*, 1141-1177.

Hanushek, E.A. (1994). *Making schools work: Improving performance and controlling costs*. Washington, D.C.: The Brookings Institution.

Hanushek, E.A. (1997). Assessing the effects of school resources on student performance: An update. *Educational Evaluation and Policy Analysis*, 19(2), 141-164.

Hartman, W.T. (1988). District spending: What do the dollars buy? *Journal of Education Finance, 13*, 436-459.

Hedges, L.V., Laine, R.D., & Greenwald, R. (1994). Does money matter? A meta-analysis of studies of the effects of differential school inputs on student outcomes. *Educational Researcher,* 23(3), 5-14.

Hussar, W. & Sonnenberg, W. (2000). *Trends in disparities in school district level expenditures per-pupil.* Washington, DC: National Center for Education Statistics.

Krueger, A.B. (1998). Reassessing the view that American schools are broken. *Federal Reserve Bank of New York Economic Policy Review, 4*(1), 29-43.

Levin, H.M. (1988). Cost-effectiveness and educational policy. *Educational Evaluation and Policy Analysis, 10*, 51-69.

Levin, H.M. & McEwan, P.J. (2001). *Cost-effectiveness analysis, 2nd Edition.* Thousand Oaks, CA: Sage.

Miles, K.H. & Darling-Hammond, L. (1998). Rethinking the allocation of teaching resources: Some lessons from high-performing schools. *Educational Evaluation and Policy Analysis, 20*, 9-29.

Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook.* Thousand Oaks, CA: Sage.

Monk, D.H. & Hussain, S. (2000). Structural influences on the internal allocation of school district resources: Evidence from New York state. *Educational Evaluation and Policy Analysis, 22*, 1-26.

Monk, D.H. & Rice, J.K. (1999). Modern education productivity research: Emerging implications for the financing of education. In W.J. Fowler, Jr. (Ed.), *Selected papers in school finance, 1997-99* (pp. 111-139). Washington, DC: National Center for Education Statistics.

Murnane, R.J. & Levy, F. (1996). *Teaching the new basic skills.* New York, NY: The Free Press.

Odden, A.R. & Archibald, S. (2001). *Reallocating resources: How to boost student achievement without asking for more.* Thousand Oaks, CA: Corwin.

Odden, A.R. & Busch, C. (1998). *Financing schools for high performance: Strategies for improving the use of educational resources.* San Francisco: Jossey-Bass.

Odden, A.R. & Picus, L.O. (2000). *School finance: A policy perspective.* Boston, MA: McGraw Hill.

Parrish, T.B. & Hikido, C.S. (1998). *Inequalities in public school district revenues.* Washington, DC: National Center for Education Statistics.

Picus, L.O. (2001). *In search of more productive schools: A guide to resource allocation in education.* Eugene, OR: ERIC Clearinghouse on Educational Management, University of Oregon.

Picus, L.O. & Fazal, M.B. (1995). The $300 billion question: How do public elementary and secondary schools spend their money? In W.J. Fowler, Jr. (Ed.). *Developments in school finance* (pp. 79-96). Washington, DC: National Center for Education Statistics.

Reschovsky, A. & Imazeki, J. (1998). The development of school finance formulas to guarantee the provision of adequate education to low-income students. In W.J. Fowler, Jr. (Ed.). *Developments in school finance 1997* (pp.121-148). Washington, DC: National Center for Education Statistics.

Rice, J.K. (1997). Cost analysis in education: Paradox and possibility. *Educational Evaluation and Policy Analysis*, 19(4), 309-317.

Southwest Educational Development Laboratory. (SEDL, 2000a). *Creating knowledge to build high-performing learning communities: A proposal to serve as the Regional Educational Laboratory for the Southwestern Region.* Austin, TX: Author.

Southwest Educational Development Laboratory. (SEDL, 2000b). *Resource allocation practices and student achievement: An examination of district expenditures by performance level with interviews from twenty-one school districts.* Austin, TX: Author.

Stiefel, L., Berne, R., Iatarola, P., & Fruchter, N. (2000). High school size: Effects on budgets and performance in New York City. *Educational Evaluation and Policy Analysis*, *22*, 27-39.

Tsang, M.C. (1997). Cost analysis for improved educational policymaking and evaluation. *Educational Evaluation and Policy Analysis*, *19*, 318-324.

U.S. Census Bureau. (2001). *Small Area Income and Poverty Estimates- School District Estimates.* U.S. Census Bureau, Housing and Household Economic Statistics Division, Small Area Estimates Branch. Washington, DC: U.S. Census Bureau. http://www.census.gov/hhes/www/saipe/schooltoc.html

U.S. Department of Education, National Center for Education Statistics. (NCES, 2000). *Projections of Education Statistics to 2010.* Washington, DC: NCES, p. 118, Table 43. http://nces.ed.gov/pubs2000/projections/.

U.S. Department of Education Local Education Agency (School District) Universe Survey Data. [Data file]. Washington, DC: National Center for Education Statistics. http://www.nces.ed.gov/ccd/pubagency.asp

U.S. Department of Education Public Elementary/Secondary School Universe Data 2001. [Data file.] Washington, DC: National Center for Education Statistics. http://www.nces.ed.gov/ccd/pubschuniv.asp

U.S. Department of Labor Consumer Price Index – All Urban Consumers 1997. [Data file]. Washington, DC: Bureau of Labor Statistics. http://www.bls.gov/cpi/

U. S. General Accounting Office. (1997). *School finance: State efforts to reduce funding gaps between poor and wealthy districts*. Washington, DC: U.S. Government Accounting Office.

Appendix A

Definition and Use of Fiscal Variables

Definitions of Fiscal Variables
Fiscal Variables Used for Data Analysis

Definitions of Fiscal Variables

Revenues
Increases in the net current assets of a government fund type from other than expenditure refunds and residual equity transfers. Reported as revenues from local, state, and federal sources.

Revenue from Local Sources
Taxes reported here should be those for which the agency has the power to levy and set the rate. Includes local property and non-property tax revenues; local government contributions; tuition; transportation; food services; student activities; textbook sales; donations; and property rentals. The following categories will be applicable to a relatively small number of districts: general sales or gross receipts tax, individual and corporate net income taxes, and all other taxes.

Revenue from State Sources
Includes all restricted and unrestricted payments made directly by the state government to local education agencies (LEAs). These payments include but are not limited to foundation or basic support, transportation, pupil-targeted programs (special, gifted, vocational, and adult education), textbook funds, capital outlay, debt service payments on local school debt, property tax relief payments, child nutrition matching payments, employee benefit payments, and loans to local education agencies. Includes revenues from a state government source, such as those that can be used without restriction, those for categorical purposes, and revenues in lieu of taxation. Also includes payments made by a state for the benefit of the LEA or contributions of equipment or supplies. Such revenues include the payment of a pension fund by the state on behalf of an LEA employee for services rendered to the LEA and contributions of fixed assets (property, plant, and equipment) such as school buses and textbooks.

Revenue from Federal Sources/Total Federal Revenue
This field contains the total federal revenue for the agency, including direct grants-in-aid from the federal government; federal grants-in-aid through the state or an intermediate agency; and other revenue that, in lieu of taxes, had the tax base been subject to taxation.

Total Expenditures
This field contains the total expenditures for the agency. Expenditures are defined as all amounts of money paid out by a school system—net of recoveries and other correcting transactions—other than for retirement of debt, purchase securities, extension of loans, and agency transactions. Note that this category includes only external transactions of a school system and excludes non-cash transactions such as the provision of perquisites or other payments-in-kind. Current operation expenditures include salaries, employee benefits, purchased services (except construction services) and supplies. These cover such objects as contracts rent, insurance, utilities, maintenance services, printing, tuition paid to private schools, and food. Total salaries include gross salaries without deduction for income tax or employee contributions for Social Security or retirement coverage. Total expenditures per pupil includes the total expenditures per pupil for the agency. Includes current expenditures, with the addition of equipment expenditures and facilities acquisition expenditures, and current expenditures not directly related to pre-K through 12 programs, such as adult education and community services expenditures.

Current Expenditures
Current expenditures are expenditures for the day-to-day operation of schools and school districts. Include expenditures for the categories of instruction, support services, and non-instructional services for salaries, employee benefits, purchased services, and supplies; and payments by the state made for or on behalf of school systems. This does not include expenditures for debt service, capital outlay (e.g., school construction, renovation, and equipment), property (i.e., equipment), non-elementary/secondary programs, or direct costs (e.g., Head Start, adult education, community colleges), and community services expenditures.

Core Expenditures
Core expenditures are only the current expenditures for instruction, student support services (health, attendance, guidance, and speech), and instructional staff support services (curricular development, in-staff training, and educational media, including libraries).

Instruction
Total current operation expenditures for activities dealing with the interaction of teachers and students in the classroom, home, or hospital as well as co-curricular activities. Includes amounts for activities of teachers and instructional aides or assistants engaged in regular instruction, special education, and vocational education programs. Excludes adult education programs. Instructional expenditures include expenditures for activities dealing directly with the interaction between students and teachers (salaries, including sabbatical leave, employee benefits, and purchased instructional services). The category of instruction includes payments from all funds for salaries, employee benefits, supplies, materials, and contractual services. Salaries for instruction include gross salary of regular and part-time teachers, teachers' aides, homebound teachers, hospital-based teachers, substitute teachers, and teachers on sabbatical leave who are on LEA payrolls.

Support Services Expenditures
Include student support services (attendance, guidance, health, speech, and psychological), staff support services (improvement of instruction, and educational media, including librarians and instructional coordinators and supervisors), general administration (board of education and central office), school administration (principal's office), business (fiscal services, purchasing, warehousing, and printing), operation and plant maintenance, student transportation services, and central expenditures (research, information services, and data processing). The category of support services includes payments from all funds for salaries, employee benefits, supplies, materials, and contractual services. It excludes food services, community services, and student enterprise activities, which are included in other expenditures. Instructional coordinators and supervisors include educational television staff, coordinators and supervisors of audio-visual services, curriculum coordinators and in-service training staff, and staff engaged in the development of computer-assisted instruction. School-based department chairpersons are excluded.

Non-Instructional Services
Include expenditures for food service operations and other auxiliary enterprise operations (bookstore and interscholastic athletics), excluding community services (e.g., child care or

swimming pool). Enterprise operations include expenditures for business-like activities (such as a bookstore) where the costs are recouped largely with user charges.

Facilities Acquisition and Construction
Include expenditures for equipment for facilities, facilities acquisition, and construction services, both property and non-property—along with expenditures for buildings built and alterations performed by LEA staff or contracted out by the LEA; the purchase of land and land improvements; and the initial, additional, and replacement items of equipment, such as machinery, furniture and fixtures, and vehicles.

Fiscal Variables Used for Data Analysis

Revenues	Dollars spent per pupil on revenues	Percent of dollar share of total revenues
Federal revenue	X	X
State revenue	X	X
Local revenue	X	X
Total revenue	X	

Expenditures	Dollars spent per pupil on expenditures	Percent of dollar share of total expenditures
Instruction salaries		X
Instruction benefits		X
Instruction other objects		X
Total instruction	X	X
Support services salaries		X
Support services benefits		X
Support services other objects		X
Total support services	X	X
Student support	X	X
Instructional staff support	X	X
General administration	X	X
School administration	X	X
Operation/maintenance	X	X
Transportation	X	X
Other support	X	X
Non-instructional services	X	X
Core expenditures	X	X
Total current expenditures	X	

Total revenue includes federal revenue, state revenue, and local revenue.

Total current expenditures include instruction, support services, and non-instructional services.

Support services include student support, instructional staff support, general administration, school administration, operation/maintenance, transportation, and other support. (Other support includes central and business support services.)

Core expenditures include instruction, student support, and instructional staff support.

Appendix B

Data Collection Protocols and Procedures

Southwest Educational Development Laboratory Resource Allocation Study Overview
Southwest Educational Development Laboratory Resource Allocation Study Consent Form
Improvement District Interview Protocol: District Administrator
Improvement District Interview Protocol: School Administrator
Improvement District Interview Focus Group Protocol
Southwest Educational Development Laboratory Teacher Survey: Improvement District Survey

Southwest Educational Development Laboratory
Resource Allocation Study
Overview

Southwest Educational Development Laboratory (SEDL)
211 East Seventh Street
Austin, Texas 78701
www.sedl.org

SEDL, in partnership with the Charles A. Dana Center at The University of Texas, is examining resource allocation in relation to student performance in public school districts across SEDL's region. SEDL researchers will analyze data from existing databases from state education agencies and school districts, as well as from interviews, focus groups, surveys, and documents gathered from administrators and educators through on-site visits, telephone conversations, web pages, and mailings. The study will explore differences in district-level spending for varying levels of student achievement and resource allocation practices and challenges related to high student performance in school districts that have exhibited consistent, sustained performance improvement over time. The results will provide state and local decision-makers with information and strategies for improving resource allocation to support greater student success. A research report will be available in December 2002. The research questions are:

1. What are the expenditure patterns over time in school districts across varying levels of student performance?
2. How do improvement school districts allocate their financial resources?
3. What allocation practices have improvement school districts implemented that they identify as innovative and effective?
4. What barriers and challenges have improvement school districts faced in allocation practices?

Staff contact: [Fill in researcher's name, title, and contact information]

Southwest Educational Development Laboratory
Resource Allocation Study
Consent Form

The Southwest Educational Development Laboratory (SEDL) and the Charles A. Data Center at The University of Texas at Austin are conducting a study to examine resource allocation in school districts. The study began in early 2001 and will conclude in December 2002. Your superintendent has agreed to the participation of your district in this study. Researchers will gather information about resource allocation from 12 school districts in four states: Arkansas, Louisiana, New Mexico, and Texas. Researchers are also studying two other districts in your state.

Researchers invite you to take part in this study of resource allocation by participating in an 90-minute interview. Your interviewer is _____, a _____ staff member. She will tape record your interview and take some notes during the interview. She may be accompanied during the interview by one of her research partners. If you decide to participate in the interview, you will be asked about the type of performance gains achieved by your district, resource allocation efforts directed toward improving student performance, barriers and challenges your district may have faced in allocating resources, and resource allocation practices you consider effective.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Your responses will not be linked to your name in any written or verbal report of this research project. There will be no identifying information in publicly released reports, and school district identification will be coded in pseudonyms. Interview audiotapes will remain in a locked file at the Dana Center at The University of Texas at Austin and will be destroyed at the conclusion of the study.

A report of the research results will be available in December 2002. Our final research report will help states and school districts improve resource allocation to increase student achievement. The final report will be available in a published format and will also be posted on the SEDL web site. Findings from the study will also be presented at professional conferences.

If you have questions, please contact your interviewer, _____, at (___) _____ or Dr. Catherine Clark (512-232-9207). You will receive a copy of this consent form for your records.

You are making a decision whether or not to participate. Your decision will not affect your future relations with SEDL, the Charles A. Dana Center, or The University of Texas. Your signature below indicates that you have read the information provided above and have decided to participate in the study. If you later decide that you do not want to participate in the study, simply call the interviewer or Catherine Clark. You may discontinue your participation in this study at any time.

_____

Printed Name of Participant

_____ _____

Signature of Participant Date

_____ _____

Signature of Investigator Date

Improvement District Interview Protocol

District Administrator

SEDL Resource Allocation Study
September 2001

Complete this information prior to the interview. Verify it at the time of the interview.

Interviewee Name: _____

Title: _____

School District: _____

Address: _____

_____

Phone: _____ E-mail: _____

Interviewer Name: _____

Interview Date: _____

Interview Location: _____

Interviewer Guidelines

In preparation for the site visit, collect available background materials regarding the district/school finance structure, recent improvement efforts, teacher compensation schedules or policies, etc. Also review any data compiled and analyzed that will help provide insights on accountability status, teacher tenure/turnover, allocation patterns, student performance improvement history, demographics, unique features. Use this information and the responses provided by the interviewee to help frame the interview questions. Interview prompts are in check boxes under some questions. They should be used to probe for information the interviewee may not discuss in their initial response.

The interview sections are coded to clarify the purpose of the questions in relation to our research questions, i.e., contextual or RQ2-4.
RQ2 = How do improvement districts allocate their financial resources?
RQ3 = What allocation practices have improvement districts implemented that they identify as innovative and effective?
RQ4 = What barriers and challenges have improvement districts faced in allocation practices?

Introduction and consent information to be read aloud or explained before the interview:

I'm _____ from _____ and this is _____ from _____ (introduce interviewers). The Southwest Educational Development Laboratory is a private non-profit organization that works to improve education through research and development. In collaboration with the Dana Center at the University of Texas, we are studying education resource allocation in the Southwestern Region. We are conducting interviews with state, district, and school decision-makers to gain a better understanding of how education resources are allocated to support student performance. The purpose of this interview is to learn about your district's successful allocation practices and the barriers and challenges your district has faced. The information you provide will be confidential and will only be used by the researchers for this study.

Please review and sign the consent form (Get signature on consent form)

Do you have any questions? If you have any questions during the interview, please ask; or if you think of any after the interview, please feel free to contact me at any time (give how to reach you- a business card perhaps).

I would like to record our conversation so that I can refer back to it later for analysis. Is it all right if I record our conversation?

If **"yes"**, tell the interviewee — *If at any time during this interview you want me to turn off the tape, just let me know. Also tell me if you decide after the interview that you'd like part of our conversation erased from the tape or considered "off-the-record." If you would like to end the interview at any time, please let me know.* **Begin the audiotape**.

If **"no"**, do not begin the audiotape, just take notes manually. Tell the interviewee —*Please tell me if you would like any part of our conversation considered "off-the-record." If you would like to end the interview at any time, please let me know.*

Introductory Lead-In [contextual]

First, I'll ask you a few general questions about you and [insert district name]

1. What are your major responsibilities in your current position with the district?

2. Describe the focus of your current work?

3. How long have you been in this position in the district?

☐ <1 year ☐ 1 - 2 years ☐ > 2 - 5 years ☐ > 5-10 years ☐ > 10 years

4. What would you say is unique about your district?

Student Performance and Resource Allocation [RQ 2, RQ3, RQ4]

As you know, our study is examining the relationship between resource allocation and student performance. By resource allocation we mean how funds, personnel, programs, and facilities are expended to meet school and district needs. According to state data, your district has sustained continuous improvement in student performance for at least 2 years. *(Be familiar with the district's accountability data.)* The next questions will help us learn about these improvements and their relationship to your district's resource allocation practices.

5. Tell me about performance gains in your district over the past 5 years?

☐ overall achievement ☐ achievement in specific subject areas ☐ attendance ☐ drop-outs ☐ other areas

6a. What did your district do to accomplish these gains? *(describe one change)*	☐ Spending change ☐ Staffing change ☐ Instruction change ☐ Other change	What students were affected? ☐ All students ☐ Special population ☐ Grade level What academic areas were influenced? ☐ ESL/bilingual ☐ Afterschool ☐ Reading ☐ Math ☐ Other subjects
What resources (funds, people, programs, facilities) were used for this change?		☐ New money ☐ Existing money ☐ Outside sources
How were your resources, fiscal and non-fiscal, reallocated to support this change?		
How do you know this change has made an impact on student performance improvements?		☐ Used student achievement data only ☐ Used other student performance data ☐ Used other data ☐ Used other than data to evaluate

6b. What did your district do to accomplish these gains? *(describe another)*

- ☐ Spending change
- ☐ Staffing change
- ☐ Instruction change
- ☐ Other change

What students were affected?

- ☐ All students
- ☐ Special population
- ☐ Grade level

What academic areas were influenced?

- ☐ ESL/bilingual
- ☐ Afterschool ☐ Reading
- ☐ Math ☐ Other subjects

What resources (funds, people, programs, facilities) were used for this change?

- ☐ New money
- ☐ Existing money
- ☐ Outside sources

How were your resources, fiscal and non-fiscal, reallocated to support this change?

How do you know this change has made an impact on student performance improvements?

- ☐ Used student achievement data only
- ☐ Used other student performance data
- ☐ Used other data
- ☐ Used other than data to evaluate

6c. What did your district do to accomplish these gains? *(describe another)*	☐ Spending change ☐ Staffing change ☐ Instruction change ☐ Other change	What students were affected? ☐ All students ☐ Special population ☐ Grade level What academic areas were influenced? ☐ ESL/bilingual ☐ Afterschool ☐ Reading ☐ Math ☐ Other subjects
What resources (funds, people, programs, facilities) were used for this change?		☐ New money ☐ Existing money ☐ Outside sources
How were your resources, fiscal and non-fiscal, reallocated to support this change?		
How do you know this change has made an impact on student performance improvements?		☐ Used student achievement data only ☐ Used other student performance data ☐ Used other data ☐ Used other than data to evaluate

6d. What did your district do to accomplish these gains? *(describe another)*

- ☐ Spending change
- ☐ Staffing change
- ☐ Instruction change
- ☐ Other change

What students were affected?

- ☐ All students
- ☐ Special population
- ☐ Grade level

What academic areas were influenced?

- ☐ ESL/bilingual
- ☐ Afterschool ☐ Reading
- ☐ Math ☐ Other subjects

What resources (funds, people, programs, facilities) were used for this change?

- ☐ New money
- ☐ Existing money
- ☐ Outside sources

How were your resources, fiscal and non-fiscal, reallocated to support this change?

How do you know this change has made an impact on student performance improvements?

- ☐ Used student achievement data only
- ☐ Used other student performance data
- ☐ Used other data
- ☐ Used other than data to evaluate

Now, I'd like to find out about any barriers and challenges your district has faced over the past 5 years in allocating resources to support your student performance improvements. These may include financial, staffing, instructional, student population, or any other barriers or challenges.

7a. Tell me about one barrier or challenge your district has faced?	How is the district working to overcome this barrier/challenge?
7b. Tell me about another barrier or challenge your district has faced?	How is the district working to overcome this barrier/challenge?

7c. Tell me about another barrier or challenge your district has faced?	How is the district working to overcome this barrier/challenge?
7d. Tell me about another barrier or challenge your district has faced?	How is the district working to overcome this barrier/challenge?

General Funding and Resource Allocation Practices [RQ 2]

Our previous questions have focused on student performance. Now, I'd like to learn more about [insert district's name]'s general resource allocation practices, not just those related to your improved student performance.

8. In general over the past several years, what shifts were made in your district resource allocations to meet district needs?

9. Tell me about factors, fiscal and non-fiscal, that were a major influence on district allocation changes in the last 5 years?

9a. List one factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

9b. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		
9c. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

9d. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

10. What factors do you think will be a major influence on the allocation of resources in your district in the next 5 years?

☐ funding ☐ characteristics ☐ staffing issues/policies ☐ goals/priorities ☐ federal/state mandates and regulations ☐ other

We are coming to the end of the interview. I have just two more general questions to ask you.

11. What advice would you give regarding resource allocation to another district that is working to make improvements in student performance?
12. What other information do you think might be important for us to know about resource allocation and improved student performance in your district?

NOTE: Ask other interview staff if they have any additional questions or comments of the interviewee.

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS INTERVIEW FOR OUR STUDY.

If you have any questions or would like further information, please contact me at:

Improvement District Interview Protocol

School Administrator

SEDL Resource Allocation Study
September 2001

Complete this information prior to the interview. Verify it at the time of the interview.

Interviewee Name: _____

Title: _____

School District: _____

School: _____

Address: _____

_____

Phone: _____ E-mail: _____

Interviewer Name: _____

Interview Date: _____

Interview Location: _____

Interviewer Guidelines

In preparation for the site visit, collect available background materials regarding the district/school finance structure, recent improvement efforts, teacher compensation schedules or policies, etc. Also review any data compiled and analyzed that will help provide insights on accountability status, teacher tenure/turnover, allocation patterns, student performance improvement history, demographics, unique features. Use this information and the responses provided by the interviewee to help frame the interview questions. Interview prompts are in check boxes under some questions. They should be used to probe for information the interviewee may not discuss in their initial response.

The interview sections are coded to clarify the purpose of the questions in relation to our research questions, i.e., contextual or RQ2-4.
RQ2 = How do improvement districts allocate their financial resources?
RQ3 = What allocation practices have improvement districts implemented that they identify as innovative and effective?
RQ4 = What barriers and challenges have improvement districts faced in allocation practices?

Introduction and consent information to be read aloud or explained before the interview:

I'm _____ from _____ and this is _____ from _____ (introduce interviewers). The Southwest Educational Development Laboratory is a private non-profit organization that works to improve education through research and development. In collaboration with the Dana Center at the University of Texas, we are studying education resource allocation in the Southwestern Region. We are conducting interviews with state, district, and school decision-makers to gain a better understanding of how education resources are allocated to support student performance. The purpose of this interview is to learn about your district and school's successful allocation practices and the barriers and challenges your school/district has faced. The information you provide will be confidential and will only be used by the researchers for this study.

Please review and sign the consent form (Get signature on consent form)

Do you have any questions? If you have any questions during the interview, please ask; or if you think of any after the interview, please feel free to contact me at any time (give how to reach you- a business card perhaps).

I would like to record our conversation so that I can refer back to it later for analysis. Is it all right if I record our conversation?

If **"yes"**, tell the interviewee — *If at any time during this interview you want me to turn off the tape, just let me know. Also tell me if you decide after the interview that you'd like part of our conversation erased from the tape or considered "off-the-record." If you would like to end the interview at any time, please let me know.* **Begin the audiotape**.

If **"no"**, do not begin the audiotape, just take notes manually. Tell the interviewee —*Please tell me if you would like any part of our conversation considered "off-the-record." If you would like to end the interview at any time, please let me know.*

Introductory Lead-In [context building]

First, I'll ask you a few general questions about you and [insert school name]

1. What are your major responsibilities in your current position at [insert school name]?

2. Describe the focus of your current work?

3. How long have you been in this position with the school?

☐ <1 year ☐ 1 - 2 years ☐ > 2 - 5 years ☐ > 5-10 years ☐ > 10 years

4. What would you say is unique about your school?

Student Performance [RQ3, RQ4]

According to state data, your district has sustained continuous improvement in student performance for at least 2 years. ***(Be familiar with the school's accountability data.)*** **The next questions will help us learn about these improvements.**

5. Tell me about performance gains in your school over the past 5 years?

☐ overall achievement ☐ achievement in specific subject areas ☐ attendance ☐ drop-outs ☐ other areas

6a. What did your school do to accomplish these gains? *(describe one change)*

- ☐ Spending change
- ☐ Staffing change
- ☐ Instruction change
- ☐ Other change

What students were affected?

- ☐ All students
- ☐ Special population
- ☐ Grade level

What academic areas were influenced?

- ☐ ESL/bilingual
- ☐ Afterschool ☐ Reading
- ☐ Math ☐ Other subjects

What resources (funds, people, programs, facilities) were used for this change?

- ☐ New money
- ☐ Existing money
- ☐ Outside sources

How were your resources, fiscal and non-fiscal, reallocated to support this change?

How do you know this change has made an impact on student performance improvements?

- ☐ Used student achievement data only
- ☐ Used other student performance data
- ☐ Used other data
- ☐ Used other than data to evaluate

6b. What did your school do to accomplish these gains? *(describe one change)*

- ☐ Spending change
- ☐ Staffing change
- ☐ Instruction change
- ☐ Other change

What students were affected?

- ☐ All students
- ☐ Special population
- ☐ Grade level

What academic areas were influenced?

- ☐ ESL/bilingual
- ☐ Afterschool ☐ Reading
- ☐ Math ☐ Other subjects

What resources (funds, people, programs, facilities) were used for this change?

- ☐ New money
- ☐ Existing money
- ☐ Outside sources

How were your resources, fiscal and non-fiscal, reallocated to support this change?

How do you know this change has made an impact on student performance improvements?

- ☐ Used student achievement data only
- ☐ Used other student performance data
- ☐ Used other data
- ☐ Used other than data to evaluate

6c. What did your school do to accomplish these gains? *(describe one change)*	☐ Spending change ☐ Staffing change ☐ Instruction change ☐ Other change	What students were affected? ☐ All students ☐ Special population ☐ Grade level What academic areas were influenced? ☐ ESL/bilingual ☐ Afterschool ☐ Reading ☐ Math ☐ Other subjects
What resources (funds, people, programs, facilities) were used for this change?		☐ New money ☐ Existing money ☐ Outside sources
How were your resources, fiscal and non-fiscal, reallocated to support this change?		
How do you know this change has made an impact on student performance improvements?	☐ Used student achievement data only ☐ Used other student performance data ☐ Used other data ☐ Used other than data to evaluate	

6d. What did your school do to accomplish these gains? *(describe one change)*

- ☐ Spending change
- ☐ Staffing change
- ☐ Instruction change
- ☐ Other change

What students were affected?

- ☐ All students
- ☐ Special population
- ☐ Grade level

What academic areas were influenced?

- ☐ ESL/bilingual
- ☐ Afterschool ☐ Reading
- ☐ Math ☐ Other subjects

What resources (funds, people, programs, facilities) were used for this change?

- ☐ New money
- ☐ Existing money
- ☐ Outside sources

How were your resources, fiscal and non-fiscal, reallocated to support this change?

How do you know this change has made an impact on student performance improvements?

- ☐ Used student achievement data only
- ☐ Used other student performance data
- ☐ Used other data
- ☐ Used other than data to evaluate

Now, I'd like to find out about any barriers and challenges your school has faced over the past 5 years in allocating resources to support your student performance improvements. These may include financial, staffing, instructional, student population, or any other barriers or challenges.

7a. Tell me about one barrier or challenge your school has faced?	How is the school working to overcome this barrier/challenge?
7b. Tell me about another barrier or challenge your school has faced?	How is the school working to overcome this barrier/challenge?

7c. Tell me about another barrier or challenge your school has faced?	How is the school working to overcome this barrier/challenge?
7d. Tell me about another barrier or challenge your school has faced?	How is the school working to overcome this barrier/challenge?

Resource Allocation Practices [RQ 2]

As you know, our study is examining the relationship between resource allocation and student performance. By resource allocation we mean how funds, personnel, programs, and facilities are expended to meet school and district needs. We'd like to learn about [insert district name]'s resource allocation practices and how it impacts your school.

8. In general over the past several years, what shifts were made in your district's resource allocations to meet school needs?

9. Tell me about factors, fiscal and non-fiscal, that were a major influence on district allocation changes in the last 5 years?

9a. List one factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

9b. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		
9c. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

9d. List another factor	*How has this factor influenced changes in your allocation of resources over the past 5 years?*	*What key people have been (or will be) involved in dealing with this?*
☐ Funding ☐ Characteristics ☐ Staffing issues/policies ☐ Goals/priorities ☐ Mandates and regulations ☐ Other factor		

10. What factors do you think will be a major influence on the allocation of resources in your district in the next 5 years?

☐ revenue ☐ characteristics ☐ staffing issues/policies ☐ goals/priorities ☐ federal/state mandates and regulations ☐ other

We are coming to the end of the interview. I have just two more general questions to ask you.

11. What advice would you give regarding resource allocation to another school that is working to make improvements in student performance?
12. What other information do you think might be important for us to know about resource allocation and improved student performance in your school or district?

Note: Ask other interview staff if they have nay additional questions or comments of the interviewee.

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS INTERVIEW FOR OUR STUDY.

If you have any questions or would like further information, please contact me at:

Improvement District

Focus Group Protocol

SEDL Resource Allocation Study
September 2001

Complete this information prior to the interview. Verify it at the time of the interview.

Pass around a focus group attendance sheet and ask participants to complete.

School District: _____

Address: _____

_____

Phone: _____ E-mail: _____

Interviewer Name: _____

Interview Date: _____

Interview Location: _____

Focus Group Facilitator Guidelines

In preparation for the site visit, collect available background materials regarding the district/school finance structure, recent improvement efforts, teacher compensation schedules or policies, etc. Also review any data compiled and analyzed that will help provide insights on accountability status, allocation patterns, student performance improvement history, demographics, and unique features. Use this information and the responses provided by the focus group participants to help frame the focus group questions.

Introduction and consent information to be read aloud or explained before the interview:

I'm _____ from _____ and this is _____ from _____ (introduce research staff). The Southwest Educational Development Laboratory is a private non-profit organization that works to improve education through research and development. In collaboration with the Dana Center at the University of Texas, we are conducting this focus group to learn about how resources are allocated in districts that have had student performance improvement for at least the past several years. ***By resource allocation we mean how funds, personnel, programs, and facilities are expended to meet school and district needs.*** *The perspective of principals and other school administrators about resource allocation practices is most important to the study.*

The information each of you provide will be used for the purpose of this study only. Be assured that confidentiality will be maintained and information will be disclosed only with your permission. Your identities will remain anonymous in our written reports.

I ask that each of you review and sign the consent form (Get signature on consent form)

We will be taping the focus group session. If at any time during this discussion any of you want me to turn off the tape, just let me know. Also tell me if you decide any part of our conversation should be erased from the tape or considered "off-the-record." If you would like to or need to end your participation in the group discussion at any time, please feel free to do so while the others continue. If you are not comfortable with participating in this taped conversation, we understand and thank you now.

Do you have any questions? If you have any questions during the group session, please ask; or if you think of any after, please feel free to contact me at any time (give how to reach you- a business card perhaps).

Introductory Lead-In [contextual]

1. What would you say is unique about your district? (demographics, population, size, wealth, community/environment)

Student Performance and Resource Allocation [RQ 2, RQ3, RQ4]

According to state data, your district has sustained continuous improvement in student performance for at least 2 years.

2. What has been implemented in your schools and district over the past five years to improve student performance?

☐ overall achievement ☐ achievement in specific subject areas ☐ attendance ☐ drop-outs ☐ other areas

☐ spending change ☐ staffing change ☐ instruction change ☐ other

3. How have these changes affected the way your schools and district allocates resources (funds, personnel, programs, time, and facilities)?

Now, I'd like to find out about any barriers and challenges your district has faced over the past 5 years in these allocation practices. These may include financial, staffing, instructional, student population, or any other barriers or challenges.

4. What resource allocation barriers or challenges have your schools and district faced in improving student performance?

Our previous questions have focused on student performance. Now, I'd like to learn more about [insert district's name]'s general resource allocation practices, not just those related to your improved student performance.

5. Tell me about factors, fiscal and non-fiscal, that were a major influence on school and district allocation changes in the last 5 years.

☐ funding ☐ characteristics ☐ staffing issues/policies ☐ goals/priorities ☐ mandates and regulations ☐ other

We are coming to the end of the group discussion.

6. What advice about effective resource allocation practices would you offer to educators interested in improving student performance?

7. What other information do you think might be important for us to know about resource allocation and improved student performance in your district?

NOTE: Ask other research staff if they have any additional questions or comments of the group.

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS FOCUS GROUP FOR OUR STUDY

Southwest Educational Development Laboratory
Teacher Survey
Improvement District Survey

The Southwest Educational Development Laboratory (SEDL) is conducting this survey to learn about how resources are allocated in districts in which student performance improved for at least the past several years. **By resource allocation we mean how funds, personnel, programs, and facilities are expended to meet school and district needs.** The perspective of teachers and other instructional staff is most important to the study.

Your participation is voluntary. Your anonymous responses will be taken as evidence of your consent to have the information used for the purposes of this study. Feel free to make additional comments on the back of the survey form.

Please return your completed survey in the enclosed self-addressed, stamped envelope to SEDL no later than (insert date). For additional information or a summary of the research findings, please contact Dr. Zena Rudo or Ms. Diane Pan at SEDL, 211 E. Seventh St., Austin, TX 78701, phone 1-800-476-6861.

PLEASE BE SURE TO COMPLETELY DARKEN EACH BUBBLE THAT YOU MARK.

1. Which of the following best describes your relationship to your public school?
   - O Teacher
   - O Teacher's aide
   - O Curriculum specialist
   - O Other (Specify: _____)

2. How long have you held this position, in this school or any other?
   - O First year
   - O Two to four years
   - O Five to ten years
   - O More than ten years

3. Which of the following characteristics best describe your school district? ***(Please bubble-in <u>all</u> that apply)***
   - O Rural
   - O Urban
   - O Suburban
   - O High poverty student population
   - O High percentage of minority students
   - O High percentage of students with limited English language
   - O High student mobility
   - O Other _____

4. How much improvement in student performance has your school made in the last five years?
   - O Much improvement for all students
   - O Much improvement for some students
   - O Some improvement for all students
   - O Some improvement for some students
   - O No improvement
   - O Unsure

5. Under the column labeled "School", place a check next to any resource strategy your school has implemented over the past five years to improve student performance. If the strategy has also been implemented district-wide, place a check in the column labeled "District." ***(Please check all that apply; you may have a check for a strategy in both the school and district columns.)***

	School	District	
a.	_____	_____	Reduced class sizes
b.	_____	_____	Reduced class loads
c.	_____	_____	Increased access to computer technology
d.	_____	_____	Increased planning time for teachers
e.	_____	_____	Improved programs and services for at-risk students (special ed., ELL, dropout, etc.)
f.	_____	_____	Increased special instructional programs (such as reading, mentoring/tutoring, English language)
g.	_____	_____	Increased the number of teachers with more experience or higher degrees
h.	_____	_____	Increased use of classroom aides
i.	_____	_____	Provided needed school materials or equipment
j.	_____	_____	Provided more professional development for teachers
k.	_____	_____	Improved building facilities or maintenance
l.	_____	_____	Other: _____
m.	_____	_____	Unsure

6. Please describe in greater detail at least one of the strategies you checked in question #5 above. ***(Use the back of the survey if you need additional space.)***

7. Read the following statements and darken one bubble next to each one to show whether you agree or disagree with it. Use a scale from agree strongly to disagree strongly. ***(If you cannot respond to an item, please leave it blank.)***

Practices District	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly
a. District resource allocation decisions are aligned with the needs of my school.	O	O	O	O
b. My district often engages in or attempts innovative practices to improve student performance.	O	O	O	O
c. My district finds new ways to allocate existing resources to improve student performance.	O	O	O	O
d. My district evaluates spending practices to make better spending decisions.	O	O	O	O
School				
e. Instructional staff at my school often engage in or attempt innovative practices to improve student performance.	O	O	O	O
f. In the past five years new funds for resources have been available to my school to improve student performance.	O	O	O	O
g. My school finds new ways to allocate existing resources to improve student performance.	O	O	O	O
h. Instructional staff at my school use data to determine resource needs that will improve student performance. ***Please indicate the source of data:***	O	O	O	O

8. In your opinion, what barriers and challenges have been obstacles to achieving student performance improvements at your school during the last five years? ***(Please check all that apply)***

_____ Large class sizes
_____ Large class loads
_____ Limited access to student data
_____ Limited planning time for teachers
_____ Limited access to computer technology
_____ Lack of experienced teachers
_____ Limited school materials or equipment
_____ Lack of community resources
_____ Poor building facilities or maintenance
_____ Lack of leadership at the school level
_____ Ineffective district policies and mandates
_____ Ineffective state policies and mandates
_____ Insufficient professional development
_____ Lack of competitive salaries
_____ Insufficient programs and services for at-risk students (special ed., ESL, dropout, etc.)
_____ Lack of special instructional programs (such as reading, mentoring/tutoring, English language)
_____ Other: _____
_____ Unsure

9. Please describe how you, other instructional staff, or any other people have successfully addressed the challenges or barriers your school has faced in achieving student performance improvements. ***(Use the back of the survey if you need additional space.)***

10. Which of the following factors influence how your district allocates resources (funds, people, programs, facilities) to schools? Use a scale from 1 (to a great extent) to 4 (not at all). ***(If you cannot respond to an item, please leave it blank.)***

	To a great extent	To some extent	Very little	Not at all
a. School characteristics (location, population, # of students, etc.)	○	○	○	○
b. School type (elementary, middle, high, alternative, magnet, etc.)	○	○	○	○
c. Student needs	○	○	○	○
d. Staffing needs	○	○	○	○
e. Laws and regulations	○	○	○	○
f. District goals and priorities	○	○	○	○
g. Fairness and equity	○	○	○	○
h. Availability or lack of funds	○	○	○	○
i. Other, please specify:_____	○	○	○	○

Please include any additional comments you have as instructional staff on how best to allocate resources to improve student performance. ***(Use the back of the survey if you need additional space.)***

Please tell us your Zip Code: ☐☐☐☐☐

Thank you for participating in our research! Please mail the survey back in the attached self-addressed, stamped envelope by (insert date).

Appendix C

Research Question 1: Regression and ANOVA Analyses

Arkansas Regression, 1998–2000
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years– Arkansas
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years–Arkansas

Louisiana Regression, 1998–2000
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years–Louisiana
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years–Louisiana

New Mexico Regression, 1998–2000
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years–New Mexico
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years–New Mexico

Texas Regression, 1998–2000
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years–Texas
Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years–Texas

Research Question 1 Statistical Analyses–Arkansas

Arkansas Regression 1998

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.717[a]	.514	.498	3.00394	.514	31.153	10	294	.000	2.147

a. Predictors: (Constant), CMINSTM8, PFREELU8, CFREPIP8, PIEP8, CFRESTM8, CFREMIN8, CMINPIP8, CSTMPIP8, TOTMIN8, STUDMEI

b. Dependent Variable: MNNCE_8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	52.394	.997		52.577	.000					
	PFREELU8	-5.579	2.214	-.210	-2.520	.012	-.606	-.145	-.102	.238	4.205
	TOTMIN8	-9.939	1.366	-.635	-7.275	.000	-.658	-.391	-.296	.217	4.615
	PIEP8	-2.631	7.185	-.017	-.366	.715	-.132	-.021	-.015	.765	1.308
	STUDMEM8	3.588E-04	.000	.202	1.820	.070	.052	.106	.074	.134	7.458
	CFREMIN8	5.948	3.777	.103	1.575	.116	-.465	.091	.064	.388	2.575
	CFRESTM8	-8.32E-05	.002	-.005	-.054	.957	-.087	-.003	-.002	.182	5.491
	CFREPIP8	-104.538	54.064	-.113	-1.934	.054	-.041	-.112	-.079	.482	2.076
	CSTMPIP8	-7.55E-03	.005	-.093	-1.394	.164	-.027	-.081	-.057	.373	2.678
	CMINPIP8	45.665	32.448	.085	1.407	.160	-.087	.082	.057	.453	2.206
	CMINSTM8	-8.62E-04	.001	-.165	-1.241	.216	-.026	-.072	-.050	.093	10.776

a. Dependent Variable: MNNCE_8

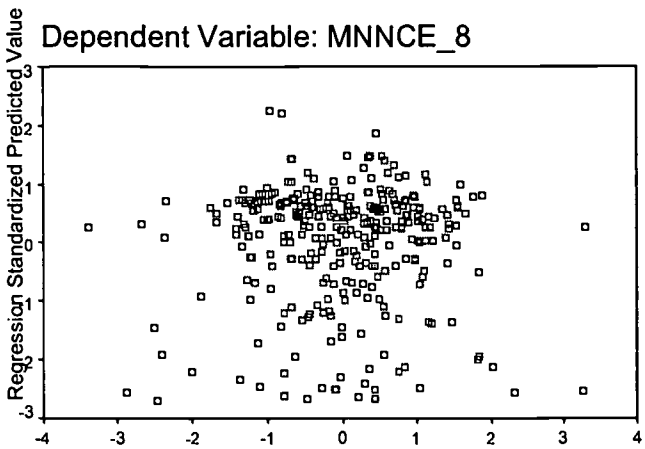
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	40.2886	55.2969	48.4339	3.04091	305
Residual	-10.1699	9.9083	.0000	2.95412	305
Std. Predicted Value	-2.679	2.257	.000	1.000	305
Std. Residual	-3.386	3.298	.000	.983	305

a. Dependent Variable: MNNCE_8

Scatterplot

Dependent Variable: MNNCE_8



Arkansas Regression 1999

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.622[a]	.386	.366	3.92075	.386	18.637	10	296	.000	2.106

a. Predictors: (Constant), CMINSTM9, PFREELU9, CFREPIP9, PIEP9, CFRESTM9, CFREMIN9, CSTMPIP9, CMINPIP9, TOTMIN9, STUDMEI

b. Dependent Variable: MNNCE_9

Coefficients[a]

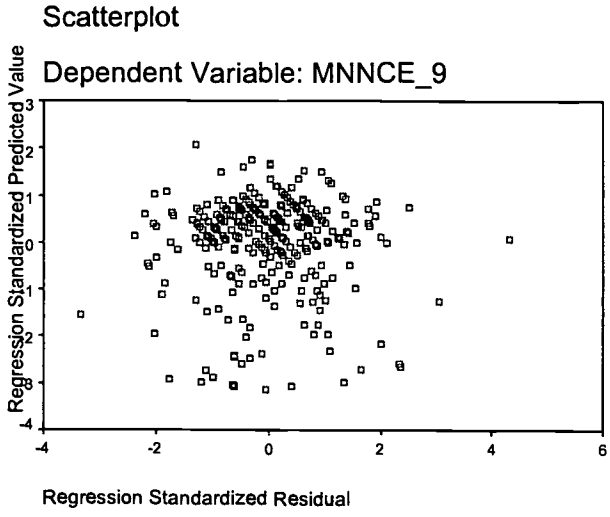
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	53.068	1.212		43.803	.000					
	PFREELU9	-6.999	3.054	-.224	-2.292	.023	-.563	-.132	-.104	.217	4.610
	TOTMIN9	-8.003	1.801	-.441	-4.443	.000	-.557	-.250	-.202	.211	4.744
	PIEP9	-3.284	9.537	-.020	-.344	.731	-.071	-.020	-.016	.607	1.648
	STUDMEM9	5.690E-04	.000	.272	2.161	.032	.058	.125	.098	.131	7.627
	CFREMIN9	.541	5.056	.008	.107	.915	-.443	.006	.005	.373	2.683
	CFRESTM9	2.007E-03	.002	.105	1.026	.306	-.028	.060	.047	.197	5.072
	CFREPIP9	-17.276	58.604	-.023	-.295	.768	-.002	-.017	-.013	.344	2.906
	CSTMPIP9	-1.00E-02	.007	-.098	-1.372	.171	-.005	-.079	-.062	.409	2.445
	CMINPIP9	-6.338	36.379	-.013	-.174	.862	-.017	-.010	-.008	.355	2.820
	CMINSTM9	-1.67E-03	.001	-.273	-1.838	.067	-.012	-.106	-.084	.094	10.631

a. Dependent Variable: MNNCE 9

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	39.2599	55.1217	48.8111	3.05978	307
Residual	-13.1057	16.9312	.0000	3.85615	307
Std. Predicted Value	-3.122	2.062	.000	1.000	307
Std. Residual	-3.343	4.318	.000	.984	307

a. Dependent Variable: MNNCE_9



Arkansas Regression 2000

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.690[a]	.476	.459	3.52521	.476	26.921	10	296	.000	2.027

a. Predictors: (Constant), CMINSTM0, PFREELU0, CFREPIP0, PIEP0, CFRESTM0, CFREMIN0, CSTMPIP0, CMINPIP0, TOTMIN0, TOTSTU0

b. Dependent Variable: MNNCE_0

Coefficients[a]

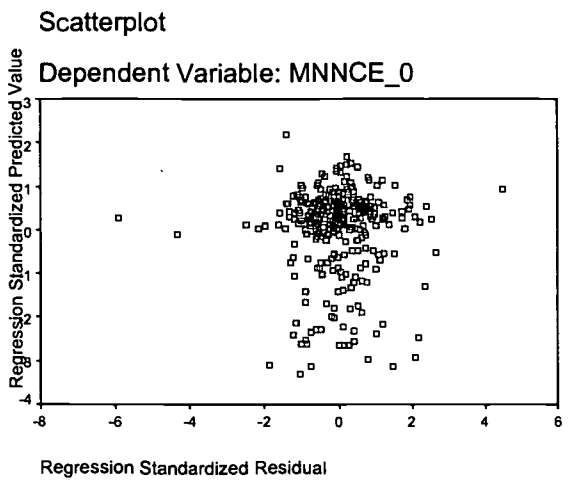
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	54.098	1.158		46.700	.000					
	PFREELU0	-8.188	2.683	-.280	-3.051	.002	-.616	-.175	-.128	.210	4.763
	TOTMIN0	-7.979	1.678	-.454	-4.755	.000	-.630	-.266	-.200	.194	5.161
	PIEP0	-1.826	8.055	-.012	-.227	.821	-.041	-.013	-.010	.673	1.485
	TOTSTU0	3.840E-04	.000	.190	1.530	.127	.043	.089	.064	.114	8.737
	CFREMIN0	-.470	4.386	-.008	-.107	.915	-.508	-.006	-.005	.356	2.811
	CFRESTM0	-1.45E-04	.002	-.008	-.081	.936	-.043	-.005	-.003	.182	5.496
	CFREPIP0	-13.803	56.748	-.016	-.243	.808	.020	-.014	-.010	.391	2.559
	CSTMPIP0	-4.97E-03	.006	-.058	-.823	.411	.040	-.048	-.035	.351	2.646
	CMINPIP0	-34.681	34.795	-.067	-.997	.320	-.027	-.058	-.042	.393	2.541
	CMINSTM0	-1.13E-03	.001	-.198	-1.272	.204	-.027	-.074	-.054	.073	13.632

a. Dependent Variable: MNNCE_0

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	38.3288	56.5638	49.2976	3.30654	307
Residual	-20.7990	15.9326	.0000	3.46713	307
Std. Predicted Value	-3.317	2.198	.000	1.000	307
Std. Residual	-5.900	4.520	.000	.984	307

a. Dependent Variable: MNNCE_0



Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years–Arkansas

Note:
RANKAVSC = Non-Adjusted Performance Groups, 1 = Low Performance,
2 = Mid-Performance 3, = High Performance
YEAR = Year of fiscal data, 1 = 1994–95, 2 = 1995–96, 3 = 1996–97, 4 = 1997–98, 5 = 1998–99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKAVSC	1.00	515
	2.00	510
	3.00	510
YEAR	1.00	307
	2.00	307
	3.00	307
	4.00	307
	5.00	307

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVSC) –Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	19457176.2[a]	14	1389798.301	9.920	.000
Intercept	1.355E+10	1	1.355E+10	96699.258	.000
RANKAVSC	11474229.7	2	5737114.838	40.950	.000
YEAR	7575075.199	4	1893768.800	13.517	.000
RANKAVSC * YEAR	402455.103	8	50306.888	.359	.942
Error	212955089	1520	140102.032		
Total	1.378E+10	1535			
Corrected Total	232412265	1534			

a. R Squared = .084 (Adjusted R Squared = .075)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	137.7128*	23.3827	.000	82.9107	192.5149
	3.00	207.8873*	23.3827	.000	153.0852	262.6895
2.00	1.00	-137.7128*	23.3827	.000	-192.5149	-82.9107
	3.00	70.1745*	23.4397	.008	15.2389	125.1102
3.00	1.00	-207.8873*	23.3827	.000	-262.6895	-153.0852
	2.00	-70.1745*	23.4397	.008	-125.1102	-15.2389

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST

Tukey HSD[a,b,c]

RANKAVSC	N	Subset		
		1	2	3
3.00	510	2878.1864		
2.00	510		2948.3610	
1.00	515			3086.0738
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 140102.032.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINSTRU) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCINSTRU

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.295[a]	14	2.107E-02	22.046	.000
Intercept	588.939	1	588.939	616274.9	.000
RANKAVSC	.109	2	5.427E-02	56.791	.000
YEAR	.183	4	4.574E-02	47.859	.000
RANKAVSC * YEAR	3.415E-03	8	4.269E-04	.447	.893
Error	1.453	1520	9.556E-04		
Total	590.627	1535			
Corrected Total	1.748	1534			

a. R Squared = .169 (Adjusted R Squared = .161)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINSTRU) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PCINSTRU

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.6036E-02*	1.931E-03	.000	-2.0562E-02	-1.1510E-02
	3.00	-1.9170E-02*	1.931E-03	.000	-2.3696E-02	-1.4644E-02
2.00	1.00	1.604E-02*	1.931E-03	.000	1.151E-02	2.056E-02
	3.00	-3.1341E-03	1.936E-03	.238	-7.6712E-03	1.403E-03
3.00	1.00	1.917E-02*	1.931E-03	.000	1.464E-02	2.370E-02
	2.00	3.134E-03	1.936E-03	.238	-1.4030E-03	7.671E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINSTRU

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2
1.00	515	.6077	
2.00	510		.6237
3.00	510		.6269
Sig.		1.000	.236

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 9.556E-04.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26405169.9[a]	14	1886083.568	11.594	.000
Intercept	1.666E+10	1	1.666E+10	102406.1	.000
RANKAVSC	15761777.7	2	7880888.866	48.444	.000
YEAR	10218771.2	4	2554692.800	15.704	.000
RANKAVSC * YEAR	418794.912	8	52349.364	.322	.958
Error	247275922	1520	162681.528		
Total	1.694E+10	1535			
Corrected Total	273681092	1534			

a. R Squared = .096 (Adjusted R Squared = .088)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PPCORE

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	172.6399*	25.1966	.000	113.5865	231.6932
	3.00	240.3556*	25.1966	.000	181.3023	299.4089
2.00	1.00	-172.6399*	25.1966	.000	-231.6932	-113.5865
	3.00	67.7157*	25.2580	.020	8.5185	126.9129
3.00	1.00	-240.3556*	25.1966	.000	-299.4089	-181.3023
	2.00	-67.7157*	25.2580	.020	-126.9129	-8.5185

Based on observed means.

*. The mean difference is significant at the .05 level.

PPCORE

Tukey HSD[a,b,c]

RANKAVSC	N	Subset		
		1	2	3
3.00	510	3191.7552		
2.00	510		3259.4709	
1.00	515			3432.1108
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 162681.528.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.264[a]	14	1.884E-02	17.198	.000
Intercept	724.230	1	724.230	660935.4	.000
RANKAVSC	.100	2	5.022E-02	45.830	.000
YEAR	.161	4	4.014E-02	36.633	.000
RANKAVSC * YEAR	2.760E-03	8	3.450E-04	.315	.961
Error	1.666	1520	1.096E-03		
Total	726.100	1535			
Corrected Total	1.929	1534			

a. R Squared = .137 (Adjusted R Squared = .129)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PCCORE

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.3628E-02*	2.068E-03	.000	-1.8475E-02	-8.7814E-03
	3.00	-1.9238E-02*	2.068E-03	.000	-2.4084E-02	-1.4391E-02
2.00	1.00	1.363E-02*	2.068E-03	.000	8.781E-03	1.847E-02
	3.00	-5.6098E-03*	2.073E-03	.019	-1.0468E-02	-7.5143E-04
3.00	1.00	1.924E-02*	2.068E-03	.000	1.439E-02	2.408E-02
	2.00	5.610E-03*	2.073E-03	.019	7.514E-04	1.047E-02

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

Tukey HSD[a,b,c]

RANKAVSC	N	Subset		
		1	2	3
1.00	515	.6759		
2.00	510		.6896	
3.00	510			.6952
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.096E-03.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1549979.776[a]	14	110712.841	5.612	.000
Intercept	101237057	1	101237056.9	5131.753	.000
RANKAVSC	1479720.341	2	739860.171	37.504	.000
YEAR	48248.929	4	12062.232	.611	.654
RANKAVSC * YEAR	21860.956	8	2732.620	.139	.997
Error	29985918.8	1520	19727.578		
Total	132880279	1535			
Corrected Total	31535898.6	1534			

a. R Squared = .049 (Adjusted R Squared = .040)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	47.8131*	8.7743	.000	27.2489	68.3773
	3.00	75.0238*	8.7743	.000	54.4596	95.5880
2.00	1.00	-47.8131*	8.7743	.000	-68.3773	-27.2489
	3.00	27.2107*	8.7956	.006	6.5964	47.8250
3.00	1.00	-75.0238*	8.7743	.000	-95.5880	-54.4596
	2.00	-27.2107*	8.7956	.006	-47.8250	-6.5964

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2	Subset 3
3.00	510	222.7367		
2.00	510		249.9474	
1.00	515			297.7605
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 19727.578.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PCGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCGESUPP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.097E-02[a]	14	2.212E-03	4.302	.000
Intercept	4.150	1	4.150	8069.211	.000
RANKAVSC	2.673E-02	2	1.336E-02	25.984	.000
YEAR	3.126E-03	4	7.815E-04	1.520	.194
RANKAVSC * YEAR	1.117E-03	8	1.397E-04	.272	.975
Error	.782	1520	5.143E-04		
Total	4.965	1535			
Corrected Total	.813	1534			

a. R Squared = .038 (Adjusted R Squared = .029)

Post Hoc Test on Percent General Administration Expenditures (PCGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Arkansas

Multiple Comparisons

Dependent Variable: PCGESUPP

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	5.928E-03*	1.417E-03	.000	2.608E-03	9.248E-03
	3.00	1.016E-02*	1.417E-03	.000	6.843E-03	1.348E-02
2.00	1.00	-5.9279E-03*	1.417E-03	.000	-9.2481E-03	-2.6076E-03
	3.00	4.235E-03*	1.420E-03	.008	9.069E-04	7.564E-03
3.00	1.00	-1.0163E-02*	1.417E-03	.000	-1.3483E-02	-6.8429E-03
	2.00	-4.2353E-03*	1.420E-03	.008	-7.5637E-03	-9.0692E-04

Based on observed means.

*. The mean difference is significant at the .05 level.

PCGESUPP

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2	Subset 3
3.00	510	4.720E-02		
2.00	510		5.143E-02	
1.00	515			5.736E-02
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 5.143E-04.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years – Arkansas

Note:
RANKADJ = Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR = Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8046838.233[a]	14	574774.160	3.894	.000
Intercept	1.355E+10	1	1.355E+10	91803.661	.000
RANKADJ	221611.371	2	110805.685	.751	.472
YEAR	7571986.209	4	1892996.552	12.824	.000
RANKADJ * YEAR	244735.425	8	30591.928	.207	.990
Error	224365427	1520	147608.834		
Total	1.378E+10	1535			
Corrected Total	232412265	1534			

a. R Squared = .035 (Adjusted R Squared = .026)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKADJ) – Arkansas

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	28.0736	24.0595	.473	-28.3146	84.4618
	3.00	6.2707	24.0010	.963	-49.9804	62.5219
2.00	1.00	-28.0736	24.0595	.473	-84.4618	28.3146
	3.00	-21.8028	24.0010	.635	-78.0540	34.4483
3.00	1.00	-6.2707	24.0010	.963	-62.5219	49.9804
	2.00	21.8028	24.0010	.635	-34.4483	78.0540

Based on observed means.

PPINST

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1
2.00	510	2954.6066
3.00	515	2976.4095
1.00	510	2982.6802
Sig.		.472

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 147608.834.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINSTRU) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCINSTRU

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.212[a]	14	1.518E-02	15.027	.000
Intercept	588.885	1	588.885	583104.4	.000
RANKADJ	2.752E-02	2	1.376E-02	13.626	.000
YEAR	.183	4	4.576E-02	45.313	.000
RANKADJ * YEAR	1.946E-03	8	2.432E-04	.241	.983
Error	1.535	1520	1.010E-03		
Total	590.627	1535			
Corrected Total	1.748	1534			

a. R Squared = .122 (Adjusted R Squared = .113)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINSTRU) for Adjusted Performance Groups (RANKADJ) - Arknasas

Multiple Comparisons

Dependent Variable: PCINSTRU

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-9.0594E-03*	1.990E-03	.000	-1.3724E-02	-4.3952E-03
	3.00	-1.3995E-04	1.985E-03	.997	-4.7928E-03	4.513E-03
2.00	1.00	9.059E-03*	1.990E-03	.000	4.395E-03	1.372E-02
	3.00	8.919E-03*	1.985E-03	.000	4.267E-03	1.357E-02
3.00	1.00	1.399E-04	1.985E-03	.997	-4.5129E-03	4.793E-03
	2.00	-8.9195E-03*	1.985E-03	.000	-1.3572E-02	-4.2666E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINSTRU

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1	Subset 2
1.00	510	.6163	
3.00	515	.6165	
2.00	510		.6254
Sig.		.997	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.010E-03.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10722441.8[a]	14	765888.700	4.427	.000
Intercept	1.666E+10	1	1.666E+10	96324.052	.000
RANKADJ	250709.448	2	125354.724	.725	.485
YEAR	10213262.7	4	2553315.676	14.759	.000
RANKADJ * YEAR	247135.053	8	30891.882	.179	.994
Error	262958650	1520	172999.112		
Total	1.694E+10	1535			
Corrected Total	273681092	1534			

a. R Squared = .039 (Adjusted R Squared = .030)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKADJ) – Arkansas

Multiple Comparisons

Dependent Variable: PPCORE

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	30.5497	26.0466	.469	-30.4959	91.5952
	3.00	9.1776	25.9834	.934	-51.7196	70.0748
2.00	1.00	-30.5497	26.0466	.469	-91.5952	30.4959
	3.00	-21.3721	25.9834	.689	-82.2693	39.5251
3.00	1.00	-9.1776	25.9834	.934	-70.0748	51.7196
	2.00	21.3721	25.9834	.689	-39.5251	82.2693

Based on observed means.

PPCORE

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1
2.00	510	3277.5736
3.00	515	3298.9457
1.00	510	3308.1232
Sig.		.468

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 172999.112.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.197[a]	14	1.406E-02	12.338	.000
Intercept	724.180	1	724.180	635350.7	.000
RANKADJ	3.527E-02	2	1.763E-02	15.471	.000
YEAR	.161	4	4.016E-02	35.237	.000
RANKADJ * YEAR	9.787E-04	8	1.223E-04	.107	.999
Error	1.733	1520	1.140E-03		
Total	726.100	1535			
Corrected Total	1.929	1534			

a. R Squared = .102 (Adjusted R Squared = .094)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (RANKADJ) – Arkansas

Multiple Comparisons

Dependent Variable: PCCORE

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-9.9473E-03*	2.114E-03	.000	-1.4902E-02	-4.9922E-03
	3.00	4.419E-04	2.109E-03	.976	-4.5011E-03	5.385E-03
2.00	1.00	9.947E-03*	2.114E-03	.000	4.992E-03	1.490E-02
	3.00	1.039E-02*	2.109E-03	.000	5.446E-03	1.533E-02
3.00	1.00	-4.4194E-04	2.109E-03	.976	-5.3850E-03	4.501E-03
	2.00	-1.0389E-02*	2.109E-03	.000	-1.5332E-02	-5.4462E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1	Subset 2
3.00	515	.6833	
1.00	510	.6837	
2.00	510		.6936
Sig.		.976	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.140E-03.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	461708.895[a]	14	32979.207	1.613	.069
Intercept	101325077	1	101325076.8	4956.336	.000
RANKADJ	396014.749	2	198007.374	9.686	.000
YEAR	48377.117	4	12094.279	.592	.669
RANKADJ * YEAR	17295.668	8	2161.959	.106	.999
Error	31074189.7	1520	20443.546		
Total	132880279	1535			
Corrected Total	31535898.6	1534			

a. R Squared = .015 (Adjusted R Squared = .006)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKADJ) – Arkansas

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	37.6605*	8.9538	.000	16.6754	58.6455
	3.00	8.8122	8.9321	.585	-12.1218	29.7463
2.00	1.00	-37.6605*	8.9538	.000	-58.6455	-16.6754
	3.00	-28.8483*	8.9321	.004	-49.7823	-7.9142
3.00	1.00	-8.8122	8.9321	.585	-29.7463	12.1218
	2.00	28.8483*	8.9321	.004	7.9142	49.7823

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1	Subset 2
2.00	510	234.7569	
3.00	515		263.6052
1.00	510		272.4174
Sig.		1.000	.586

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 20443.546.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PCGESUP) for Adjusted Performance Groups (RANKADJ) – Arkansas

Tests of Between-Subjects Effects

Dependent Variable: PCGESUPP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.289E-02[a]	14	9.209E-04	1.750	.041
Intercept	4.153	1	4.153	7891.917	.000
RANKADJ	9.205E-03	2	4.603E-03	8.747	.000
YEAR	3.133E-03	4	7.832E-04	1.488	.203
RANKADJ * YEAR	5.574E-04	8	6.967E-05	.132	.998
Error	.800	1520	5.262E-04		
Total	4.965	1535			
Corrected Total	.813	1534			

a. R Squared = .016 (Adjusted R Squared = .007)

Post Hoc Test on Percent General Administration Expenditures (PCGESUP) for Adjusted Performance Groups (RANKADJ) – Arkansas

Multiple Comparisons

Dependent Variable: PCGESUPP

Tukey HSD

(I) RANKADJ	(J) RANKADJ	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	6.000E-03*	1.436E-03	.000	2.633E-03	9.367E-03
	3.00	2.727E-03	1.433E-03	.138	-6.3107E-04	6.086E-03
2.00	1.00	-6.0000E-03*	1.436E-03	.000	-9.3666E-03	-2.6334E-03
	3.00	-3.2726E-03	1.433E-03	.058	-6.6311E-03	8.586E-05
3.00	1.00	-2.7274E-03	1.433E-03	.138	-6.0859E-03	6.311E-04
	2.00	3.273E-03	1.433E-03	.058	-8.5859E-05	6.631E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PCGESUPP

Tukey HSD[a,b,c]

RANKADJ	N	Subset 1	Subset 2
2.00	510	4.892E-02	
3.00	515	5.219E-02	5.219E-02
1.00	510		5.492E-02
Sig.		.058	.138

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 5.262E-04.

a. Uses Harmonic Mean Sample Size = 511.656.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Research Question 1 Statistical Analyses – Louisiana

Louisiana Regression 1998

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.899[a]	.809	.774	3.8174	.809	23.239	10	55	.000	2.076

a. Predictors: (Constant), CMINPIP8, PFREELU8, CFREMIN8, CFRESTM8, PIEP8, STUDMEM8, CSTMPIP8, PTOTMIN8, CFREPIP8, CMINSTM8

b. Dependent Variable: MEDPTL 8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	68.439	3.213		21.298	.000	61.999	74.879					
	PFREELU8	-28.606	7.493	-.505	-3.818	.000	-43.622	-13.591	-.858	-.458	-.225	.199	5.033
	PTOTMIN8	-12.725	5.099	-.338	-2.496	.016	-22.943	-2.507	-.791	-.319	-.147	.189	5.286
	PIEP8	-50.352	23.940	-.172	-2.103	.040	-98.329	-2.376	-.182	-.273	-.124	.520	1.922
	STUDMEM8	1.367E-04	.000	.256	2.104	.040	.000	.000	.119	.273	.124	.235	4.248
	CFREMIN8	-29.513	15.279	-.132	-1.932	.059	-60.133	1.106	-.294	-.252	-.114	.750	1.334
	CFRESTM8	-1.41E-05	.001	-.004	-.022	.982	-.001	.001	-.091	-.003	-.001	.095	10.482
	CFREPIP8	304.408	290.243	.173	1.049	.299	-277.251	886.068	.021	.140	.062	.127	7.853
	CSTMPIP8	-6.93E-04	.003	-.032	-.264	.793	-.006	.005	.279	-.036	-.016	.233	4.288
	CMINSTM8	-3.17E-04	.000	-.191	-.674	.503	-.001	.001	-.072	-.090	-.040	.043	23.183
	CMINPIP8	-41.326	172.283	-.036	-.240	.811	-386.589	303.937	.048	-.032	-.014	.151	6.630

a. Dependent Variable: MEDPTL 8

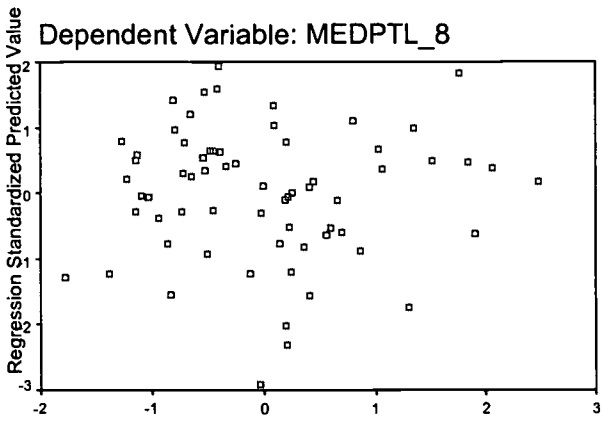
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	21.177	56.307	42.274	7.2180	66
Residual	-6.759	9.484	.000	3.5115	66
Std. Predicted Value	-2.923	1.944	.000	1.000	66
Std. Residual	-1.770	2.484	.000	.920	66

a. Dependent Variable: MEDPTL_8

Scatterplot

Dependent Variable: MEDPTL_8



Louisiana Regression 1999

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.908[a]	.824	.792	4.0636	.824	25.698	10	55	.000	.521

a. Predictors: (Constant), CMINPIP9, PFREELU9, CFREMIN9, CFRESTM9, STUDMEM9, PIEP9, CSTMPIP9, PTOTMIN9, CFREPIP9, CMINSTM9

b. Dependent Variable: MEDPTL_9

Coefficients[a]

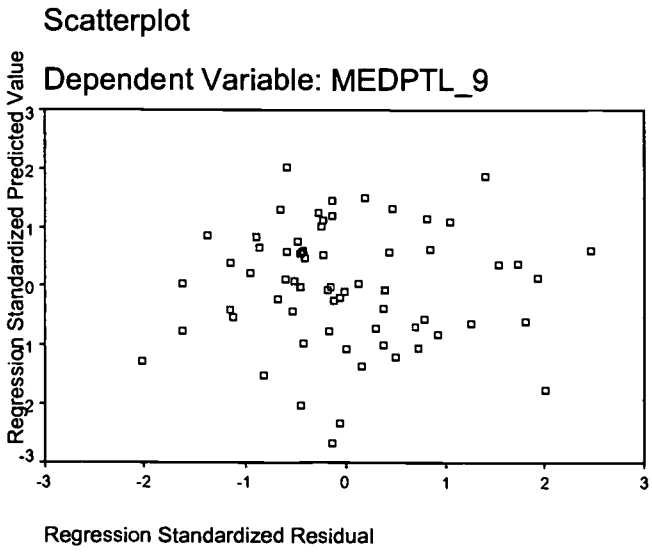
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	70.117	3.332		21.046	.000	63.440	76.793					
	PFREELU9	-35.398	7.804	-.568	-4.536	.000	-51.037	-19.759	-.877	-.522	-.257	.205	4.883
	PTOTMIN9	-14.337	5.245	-.343	-2.734	.008	-24.847	-3.826	-.828	-.346	-.155	.204	4.906
	PIEP9	-12.358	24.549	-.038	-.503	.617	-61.556	36.839	-.102	-.068	-.029	.572	1.749
	STUDMEM9	7.814E-05	.000	.130	1.122	.267	.000	.000	.046	.150	.064	.239	4.179
	CFREMIN9	-18.119	16.574	-.071	-1.093	.279	-51.335	15.096	-.212	-.146	-.062	.753	1.328
	CFRESTM9	2.449E-04	.001	.061	.472	.638	-.001	.001	-.099	.064	.027	.193	5.180
	CFREPIP9	210.712	325.870	.117	.647	.521	-442.346	863.770	.053	.087	.037	.098	10.229
	CSTMPIP9	-8.16E-04	.002	-.037	-.349	.728	-.005	.004	.273	-.047	-.020	.291	3.437
	CMINSTM9	-4.21E-04	.000	-.227	-1.100	.276	-.001	.000	-.129	-.147	-.062	.075	13.262
	CMINPIP9	-23.800	204.325	-.021	-.116	.908	-433.277	385.677	.104	-.016	-.007	.103	9.665

a. Dependent Variable: MEDPTL_9

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	22.155	60.163	43.733	8.0799	66
Residual	-8.208	10.050	.000	3.7380	66
Std. Predicted Value	-2.671	2.033	.000	1.000	66
Std. Residual	-2.020	2.473	.000	.920	66

a. Dependent Variable: MEDPTL_9



Louisiana Regression 2000

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.919[a]	.844	.816	3.8503	.844	29.839	10	55	.000	.919

a. Predictors: (Constant), CMINPIP0, PFREELU0, CFREMIN0, CFRESTM0, PIEP0, TOTSTU0, CSTMPIP0, PTOTMIN0, CFREPIP0, CMINSTM

b. Dependent Variable: MEDPTL_0

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	74.267	3.320		22.373	.000	67.615	80.920					
	PFREELU0	-39.471	7.858	-.633	-5.023	.000	-55.219	-23.724	-.889	-.561	-.267	.178	5.613
	PTOTMIN0	-11.646	5.127	-.279	-2.271	.027	-21.921	-1.371	-.835	-.293	-.121	.188	5.328
	PIEP0	-14.247	21.879	-.043	-.651	.518	-58.094	29.600	-.126	-.087	-.035	.653	1.531
	TOTSTU0	2.413E-05	.000	.039	.305	.762	.000	.000	.037	.041	.016	.172	5.800
	CFREMIN0	-11.896	15.349	-.047	-.775	.442	-42.656	18.864	-.249	-.104	-.041	.755	1.325
	CFRESTM0	-1.65E-04	.001	-.039	-.226	.822	-.002	.001	-.105	-.030	-.012	.096	10.366
	CFREPIP0	651.993	345.164	.336	1.889	.064	-39.732	1343.718	.007	.247	.100	.090	11.161
	CSTMPIP0	2.522E-03	.002	.113	1.062	.293	-.002	.007	.299	.142	.057	.252	3.974
	CMINSTM0	-5.88E-05	.000	-.031	-.123	.902	-.001	.001	-.139	-.017	-.007	.044	22.511
	CMINPIP0	-347.979	208.589	-.277	-1.668	.101	-766.001	70.043	.052	-.219	-.089	.102	9.777

a. Dependent Variable: MEDPTL_0

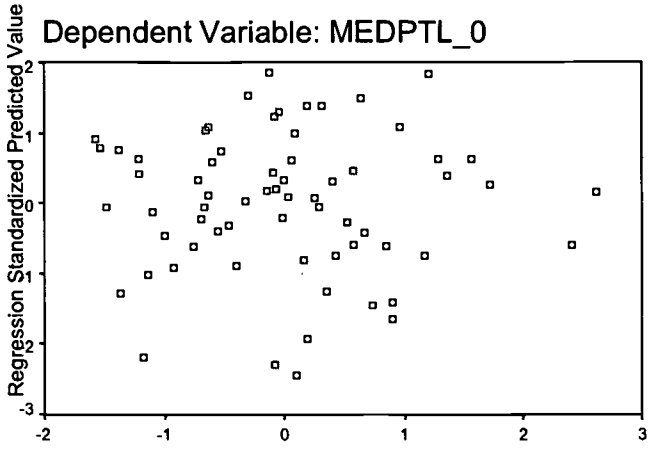
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	25.814	61.265	46.033	8.2496	66
Residual	-6.043	10.082	.000	3.5418	66
Std. Predicted Value	-2.451	1.846	.000	1.000	66
Std. Residual	-1.569	2.618	.000	.920	66

a. Dependent Variable: MEDPTL_0

Scatterplot

Dependent Variable: MEDPTL_0



Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years – Louisiana

Note:
RANKAVSC = Regular Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR = Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKAVSC	1.00	110
	2.00	110
	3.00	110
YEAR	1	66
	2	66
	3	66
	4	66
	5	66

ANOVA for Per-Pupil Instruction Expenditures (PPINST6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPINST6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	15891797.8[a]	14	1135128.416	11.835	.000
Intercept	2725163017	1	2725163017	28412.502	.000
RANKAVSC	926312.566	2	463156.283	4.829	.009
YEAR	14874589.9	4	3718647.476	38.771	.000
RANKAVSC * YEAR	90895.357	8	11361.920	.118	.999
Error	30212979.8	315	95914.222		
Total	2771267795	330			
Corrected Total	46104777.7	329			

a. R Squared = .345 (Adjusted R Squared = .316)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST6) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PPINST6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	8.29862333	41.7599682	.978	-89.5742265	106.1714731
	3.00	-108.010773*	41.7599682	.026	-205.883623	-10.1379234
2.00	1.00	-8.29862333	41.7599682	.978	-106.171473	89.57422647
	3.00	-116.309396*	41.7599682	.015	-214.182246	-18.4365467
3.00	1.00	108.010773*	41.7599682	.026	10.13792336	205.8836230
	2.00	116.309396*	41.7599682	.015	18.43654669	214.1822463

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
2.00	110	2832.14974	
1.00	110	2840.44836	
3.00	110		2948.45913
Sig.		.978	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 95914.222.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINST6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PCINST6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.865E-02[a]	14	2.047E-03	2.706	.001
Intercept	114.646	1	114.646	151588.0	.000
RANKAVSC	2.045E-02	2	1.022E-02	13.518	.000
YEAR	7.312E-03	4	1.828E-03	2.417	.049
RANKAVSC * YEAR	8.922E-04	8	1.115E-04	.147	.997
Error	.238	315	7.563E-04		
Total	114.912	330			
Corrected Total	.267	329			

a. R Squared = .107 (Adjusted R Squared = .068)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINST6) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PCINST6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.292E-02*	3.71E-03	.001	-2.1614E-02	-4.2316E-03
	3.00	-1.885E-02*	3.71E-03	.000	-2.7545E-02	-1.0163E-02
2.00	1.00	1.292E-02*	3.71E-03	.001	4.23164E-03	2.16135E-02
	3.00	-5.931E-03	3.71E-03	.246	-1.4622E-02	2.75961E-03
3.00	1.00	1.885E-02*	3.71E-03	.000	1.01630E-02	2.75449E-02
	2.00	5.931E-03	3.71E-03	.246	-2.7596E-03	1.46223E-02

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
1.00	110	.578823	
2.00	110		.591746
3.00	110		.597677
Sig.		1.000	.246

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7.563E-04.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPCORE6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22282398.1[a]	14	1591599.866	12.014	.000
Intercept	3534718043	1	3534718043	26682.217	.000
RANKAVSC	1265189.326	2	632594.663	4.775	.009
YEAR	20895676.1	4	5223919.031	39.433	.000
RANKAVSC * YEAR	121532.675	8	15191.584	.115	.999
Error	41729522.7	315	132474.675		
Total	3598729964	330			
Corrected Total	64011920.9	329			

a. R Squared = .348 (Adjusted R Squared = .319)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE6) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PPCORE6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	15.1936887	49.07780008	.949	-99.8299659	130.2173434
	3.00	-123.09151*	49.07780008	.033	-238.115163	-8.06785387
2.00	1.00	-15.193689	49.07780008	.949	-130.217343	99.82996594
	3.00	-138.28520*	49.07780008	.013	-253.308852	-23.2615426
3.00	1.00	123.091509*	49.07780008	.033	8.067853869	238.1151632
	2.00	138.285197*	49.07780008	.013	23.26154259	253.3088519

Based on observed means.

*. The mean difference is significant at the .05 level.

PPCORE6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
2.00	110	3221.64755	
1.00	110	3236.84123	
3.00	110		3359.93274
Sig.		.949	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 132474.675.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PCCORE6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.896E-02[a]	14	2.783E-03	4.409	.000
Intercept	148.479	1	148.479	235257.3	.000
RANKAVSC	2.210E-02	2	1.105E-02	17.505	.000
YEAR	1.657E-02	4	4.141E-03	6.562	.000
RANKAVSC * YEAR	2.966E-04	8	3.708E-05	.059	1.000
Error	.199	315	6.311E-04		
Total	148.717	330			
Corrected Total	.238	329			

a. R Squared = .164 (Adjusted R Squared = .127)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE6) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PCCORE6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.322E-02*	3.39E-03	.000	-2.1161E-02	-5.2825E-03
	3.00	-1.966E-02*	3.39E-03	.000	-2.7596E-02	-1.1717E-02
2.00	1.00	1.322E-02*	3.39E-03	.000	5.28246E-03	2.11611E-02
	3.00	-6.435E-03	3.39E-03	.139	-1.4374E-02	1.50441E-03
3.00	1.00	1.966E-02*	3.39E-03	.000	1.17173E-02	2.75959E-02
	2.00	6.435E-03	3.39E-03	.139	-1.5044E-03	1.43742E-02

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
1.00	110	.659814	
2.00	110		.673036
3.00	110		.679471
Sig.		1.000	.139

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 6.311E-04.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	60687.891[a]	14	4334.849	1.282	.217
Intercept	5331213.596	1	5331213.596	1576.176	.000
RANKAVSC	42939.523	2	21469.761	6.348	.002
YEAR	13538.670	4	3384.668	1.001	.407
RANKAVSC * YEAR	4209.698	8	526.212	.156	.996
Error	1065447.505	315	3382.373		
Total	6457348.993	330			
Corrected Total	1126135.396	329			

a. R Squared = .054 (Adjusted R Squared = .012)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP6) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PPGESUP6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	26.9337975*	7.84204638	.002	8.554391013	45.31320390
	3.00	19.9063756*	7.84204638	.030	1.526969173	38.28578206
2.00	1.00	-26.933797*	7.84204638	.002	-45.3132039	-8.55439101
	3.00	-7.0274218	7.84204638	.643	-25.4068283	11.35198461
3.00	1.00	-19.906376*	7.84204638	.030	-38.2857821	-1.52696917
	2.00	7.02742184	7.84204638	.643	-11.3519846	25.40682829

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
2.00	110	115.782673	
3.00	110	122.810095	
1.00	110		142.716470
Sig.		.643	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 3382.373.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PGESUPC6) for Regular Performance Groups (RANKAVSC) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PGESUPC6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.952E-03[a]	14	1.394E-04	1.442	.132
Intercept	.217	1	.217	2240.961	.000
RANKAVSC	1.597E-03	2	7.983E-04	8.259	.000
YEAR	2.120E-04	4	5.301E-05	.548	.700
RANKAVSC * YEAR	1.432E-04	8	1.790E-05	.185	.993
Error	3.045E-02	315	9.665E-05		
Total	.249	330			
Corrected Total	3.240E-02	329			

a. R Squared = .060 (Adjusted R Squared = .018)

Post Hoc Test on Percent General Administration Expenditures (PCGESUP) for Regular Performance Groups (RANKAVSC) – Louisiana

Multiple Comparisons

Dependent Variable: PGESUPC6

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	4.788E-03*	1.326E-03	.001	1.681E-03	7.895E-03
	3.00	4.533E-03*	1.326E-03	.002	1.426E-03	7.640E-03
2.00	1.00	-4.7882E-03*	1.326E-03	.001	-7.8951E-03	-1.6813E-03
	3.00	-2.5514E-04	1.326E-03	.980	-3.3621E-03	2.852E-03
3.00	1.00	-4.5331E-03*	1.326E-03	.002	-7.6400E-03	-1.4262E-03
	2.00	2.551E-04	1.326E-03	.980	-2.8518E-03	3.362E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PGESUPC6

Tukey HSD[a,b]

RANKAVSC	N	Subset 1	Subset 2
2.00	110	2.394E-02	
3.00	110	2.419E-02	
1.00	110		2.873E-02
Sig.		.980	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 9.665E-05.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years – Louisiana

Note:
RANKADIF = Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR = Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKADIF	1.00	110
	2.00	110
	3.00	110
YEAR	1	66
	2	66
	3	66
	4	66
	5	66

ANOVA for Per-Pupil Instruction Expenditures (PPINST6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPINST6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	17987771.6[a]	14	1284840.826	14.394	.000
Intercept	2725163017	1	2725163017	30530.503	.000
RANKADIF	3006781.013	2	1503390.506	16.843	.000
YEAR	14874589.9	4	3718647.476	41.661	.000
RANKADIF * YEAR	106400.651	8	13300.081	.149	.997
Error	28117006.1	315	89260.337		
Total	2771267795	330			
Corrected Total	46104777.7	329			

a. R Squared = .390 (Adjusted R Squared = .363)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PPINST6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-99.365843*	40.2854219	.036	-193.782799	-4.94888825
	3.00	-232.97608*	40.2854219	.000	-327.393033	-138.559123
2.00	1.00	99.3658435*	40.2854219	.036	4.948888247	193.7827987
	3.00	-133.61023*	40.2854219	.003	-228.027190	-39.1932793
3.00	1.00	232.976078*	40.2854219	.000	138.5591228	327.3930332
	2.00	133.610235*	40.2854219	.003	39.19327928	228.0271897

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST6

Tukey HSD[a,b]

RANKADIF	N	Subset		
		1	2	3
1.00	110	2762.90510		
2.00	110		2862.27095	
3.00	110			2995.88118
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 89260.337.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINST6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PCINST6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2.912E-02[a]	14	2.080E-03	2.755	.001
Intercept	114.646	1	114.646	151883.9	.000
RANKADIF	2.115E-02	2	1.057E-02	14.008	.000
YEAR	7.312E-03	4	1.828E-03	2.422	.048
RANKADIF * YEAR	6.563E-04	8	8.204E-05	.109	.999
Error	.238	315	7.548E-04		
Total	114.912	330			
Corrected Total	.267	329			

a. R Squared = .109 (Adjusted R Squared = .069)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINST6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PCINST6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.957E-02*	3.70E-03	.000	-2.8255E-02	-1.0890E-02
	3.00	-1.082E-02*	3.70E-03	.010	-1.9498E-02	-2.1329E-03
2.00	1.00	1.957E-02*	3.70E-03	.000	1.08900E-02	2.82549E-02
	3.00	8.757E-03*	3.70E-03	.048	7.46127E-05	1.74396E-02
3.00	1.00	1.082E-02*	3.70E-03	.010	2.13287E-03	1.94978E-02
	2.00	-8.757E-03*	3.70E-03	.048	-1.7440E-02	-7.4613E-05

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST6

Tukey HSD[a,b]

RANKADIF	N	Subset		
		1	2	3
1.00	110	.579286		
3.00	110		.590102	
2.00	110			.598859
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7.548E-04.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPCORE6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	24475293.7[a]	14	1748235.268	13.929	.000
Intercept	3534718043	1	3534718043	28162.144	.000
RANKADIF	3478951.675	2	1739475.837	13.859	.000
YEAR	20895676.1	4	5223919.031	41.621	.000
RANKADIF * YEAR	100665.951	8	12583.244	.100	.999
Error	39536627.1	315	125513.102		
Total	3598729964	330			
Corrected Total	64011920.9	329			

a. R Squared = .382 (Adjusted R Squared = .355)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PPCORE6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-90.7934463	47.7708740	.138	-202.754058	21.16716525
	3.00	-248.516547*	47.7708740	.000	-360.477158	-136.555935
2.00	1.00	90.7934463	47.7708740	.138	-21.1671652	202.7540578
	3.00	-157.723100*	47.7708740	.003	-269.683712	-45.7624888
3.00	1.00	248.516547*	47.7708740	.000	136.5559351	360.4771582
	2.00	157.723100*	47.7708740	.003	45.76248885	269.6837119

Based on observed means.

*. The mean difference is significant at the .05 level.

PPCORE6

Tukey HSD[a,b]

RANKADIF	N	Subset 1	Subset 2
1.00	110	3159.70384	
2.00	110	3250.49729	
3.00	110		3408.22039
Sig.		.138	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 125513.102.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PCCORE6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.372E-02[a]	14	2.409E-03	3.719	.000
Intercept	148.479	1	148.479	229223.0	.000
RANKADIF	1.657E-02	2	8.285E-03	12.791	.000
YEAR	1.657E-02	4	4.141E-03	6.394	.000
RANKADIF * YEAR	5.879E-04	8	7.349E-05	.113	.999
Error	.204	315	6.478E-04		
Total	148.717	330			
Corrected Total	.238	329			

a. R Squared = .142 (Adjusted R Squared = .104)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PCCORE6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.732E-02*	3.43E-03	.000	-2.5360E-02	-9.2741E-03
	3.00	-7.634E-03	3.43E-03	.067	-1.5677E-02	4.08949E-04
2.00	1.00	1.732E-02*	3.43E-03	.000	9.27408E-03	2.53603E-02
	3.00	9.683E-03*	3.43E-03	.013	1.63991E-03	1.77262E-02
3.00	1.00	7.634E-03	3.43E-03	.067	-4.0895E-04	1.56773E-02
	2.00	-9.683E-03*	3.43E-03	.013	-1.7726E-02	-1.6399E-03

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE6

Tukey HSD[a,b]

RANKADIF	N	Subset 1	Subset 2
1.00	110	.662457	
3.00	110	.670091	
2.00	110		.679774
Sig.		.067	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 6.478E-04.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	36290.553[a]	14	2592.182	.749	.724
Intercept	5331213.596	1	5331213.596	1540.891	.000
RANKADIF	21047.621	2	10523.810	3.042	.049
YEAR	13538.670	4	3384.668	.978	.420
RANKADIF * YEAR	1704.262	8	213.033	.062	1.000
Error	1089844.843	315	3459.825		
Total	6457348.993	330			
Corrected Total	1126135.396	329			

a. R Squared = .032 (Adjusted R Squared = -.011)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PPGESUP6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	11.3678359	7.93132443	.324	-7.22081157	29.95648329
	3.00	-8.1034763	7.93132443	.563	-26.6921237	10.48517117
2.00	1.00	-11.367836	7.93132443	.324	-29.9564833	7.220811574
	3.00	-19.471312*	7.93132443	.037	-38.0599595	-.8826646844
3.00	1.00	8.10347626	7.93132443	.563	-10.4851712	26.69212369
	2.00	19.4713121*	7.93132443	.037	.8826646844	38.05995955

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP6

Tukey HSD[a,b]

RANKADIF	N	Subset 1	Subset 2
2.00	110	116.823363	
1.00	110	128.191199	128.191199
3.00	110		136.294675
Sig.		.324	.563

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 3459.825.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PGESUPC6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Tests of Between-Subjects Effects

Dependent Variable: PGESUPC6

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.339E-04[a]	14	4.528E-05	.449	.957
Intercept	.217	1	.217	2147.984	.000
RANKADIF	3.695E-04	2	1.848E-04	1.832	.162
YEAR	2.120E-04	4	5.301E-05	.526	.717
RANKADIF * YEAR	5.233E-05	8	6.541E-06	.065	1.000
Error	3.176E-02	315	1.008E-04		
Total	.249	330			
Corrected Total	3.240E-02	329			

a. R Squared = .020 (Adjusted R Squared = -.024)

Post Hoc Test on Percent General Administration Expenditures (PGESUPC6) for Adjusted Performance Groups (RANKADIF) – Louisiana

Multiple Comparisons

Dependent Variable: PGESUPC6

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	2.434E-03	1.354E-03	.170	-7.3965E-04	5.607E-03
	3.00	4.447E-04	1.354E-03	.942	-2.7288E-03	3.618E-03
2.00	1.00	-2.4338E-03	1.354E-03	.170	-5.6073E-03	7.397E-04
	3.00	-1.9891E-03	1.354E-03	.306	-5.1626E-03	1.184E-03
3.00	1.00	-4.4470E-04	1.354E-03	.942	-3.6182E-03	2.729E-03
	2.00	1.989E-03	1.354E-03	.306	-1.1843E-03	5.163E-03

Based on observed means.

PGESUPC6

Tukey HSD[a,b]

RANKADIF	N	Subset 1
2.00	110	2.415E-02
3.00	110	2.613E-02
1.00	110	2.658E-02
Sig.		.170

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.008E-04.

a. Uses Harmonic Mean Sample Size = 110.000.

b. Alpha = .05.

Research Question 1 Statistical Analyses – New Mexico

New Mexico Regression 1998

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.814[a]	.663	.620	7.4326	.663	15.357	10	78	.000	2.086

a. Predictors: (Constant), CMINPIP8, PPOORC7, CPOSTM8, CPOMIN8, PIEP8, CMINSTM8, CPOPIP8, PTOTMIN8, CPIPSTM8, STUDMEM8

b. Dependent Variable: TTLMP_8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	70.352	4.849		14.510	.000					
	PPOORC7	-7.141	11.293	-.067	-.632	.529	-.432	-.071	-.042	.386	2.591
	PTOTMIN8	-36.861	6.287	-.758	-5.863	.000	-.805	-.553	-.385	.258	3.869
	PIEP8	13.179	19.755	.053	.667	.507	.177	.075	.044	.688	1.453
	STUDMEM8	-1.25E-04	.000	-.102	-.465	.643	.001	-.053	-.031	.090	11.124
	CPOMIN8	-18.877	32.081	-.041	-.588	.558	-.030	-.066	-.039	.870	1.150
	CPOSTM8	-7.07E-04	.003	-.060	-.256	.799	-.026	-.029	-.017	.079	12.672
	CPOPIP8	-72.934	205.466	-.034	-.355	.724	.021	-.040	-.023	.482	2.075
	CPIPSTM8	3.670E-03	.005	.091	.776	.440	.106	.088	.051	.315	3.176
	CMINSTM8	-2.89E-04	.002	-.022	-.161	.872	.309	-.018	-.011	.236	4.244
	CMINPIP8	55.428	101.184	.051	.548	.585	.202	.062	.036	.489	2.047

a. Dependent Variable: TTLMP_8

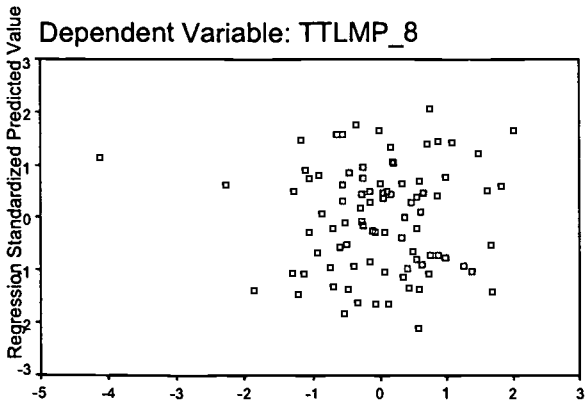
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	27.381	68.183	47.886	9.8187	89
Residual	-30.718	14.848	.000	6.9976	89
Std. Predicted Value	-2.088	2.067	.000	1.000	89
Std. Residual	-4.133	1.998	.000	.941	89

a. Dependent Variable: TTLMP_8

Scatterplot

Dependent Variable: TTLMP_8



New Mexico Regression 1999

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.843[a]	.711	.674	7.0763	.711	19.170	10	78	.000	2.032

a. Predictors: (Constant), CMINPIP9, CMINSTM9, PPOORC7, STUDMEM9, CPOMIN9, PIEP9, CPOPIP9, PTOTMIN9, CPIPSTM9, CPOSTM9

b. Dependent Variable: TTLMP_9

Coefficients[a]

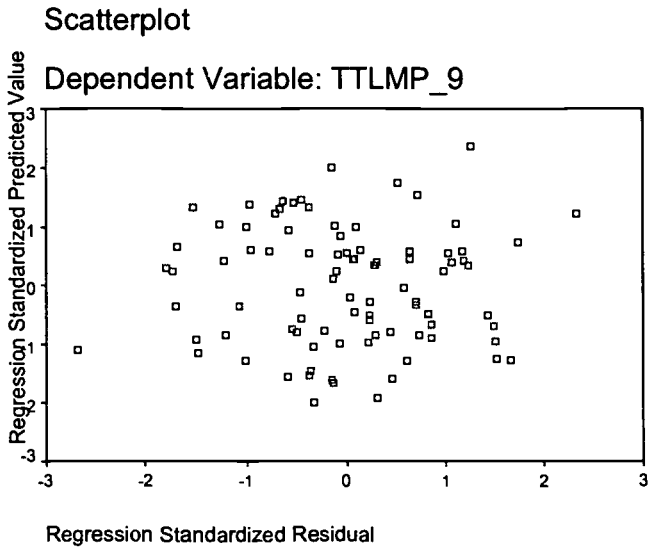
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	75.142	4.868		15.434	.000					
	PPOORC7	-24.324	10.517	-.222	-2.313	.023	-.583	-.253	-.141	.403	2.480
	PTOTMIN9	-35.430	5.907	-.707	-5.998	.000	-.798	-.562	-.365	.267	3.745
	PIEP9	20.383	18.964	.079	1.075	.286	.204	.121	.065	.678	1.475
	STUDMEM9	6.920E-05	.000	.054	.274	.785	.011	.031	.017	.096	10.449
	CPOMIN9	7.100	32.236	.015	.220	.826	.010	.025	.013	.801	1.248
	CPOSTM9	2.400E-03	.003	.196	.943	.349	.019	.106	.057	.086	11.604
	CPOPIP9	-108.307	190.976	-.048	-.567	.572	-.019	-.064	-.035	.512	1.954
	CPIPSTM9	7.804E-03	.005	.163	1.727	.088	.128	.192	.105	.418	2.394
	CMINSTM9	-1.79E-03	.002	-.129	-1.051	.297	.275	-.118	-.064	.247	4.048
	CMINPIP9	73.745	85.259	.073	.865	.390	.150	.097	.053	.527	1.899

a. Dependent Variable: TTLMP_9

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	29.174	74.436	49.904	10.4442	89
Residual	-18.967	16.434	.000	6.6621	89
Std. Predicted Value	-1.985	2.349	.000	1.000	89
Std. Residual	-2.680	2.322	.000	.941	89

a. Dependent Variable: TTLMP_9



New Mexico Regression 2000

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.850[a]	.722	.686	6.4437	.722	20.247	10	78	.000	2.117

a. Predictors: (Constant), CMINPIP0, PIEP0, TOTSTU0, CMINSTM0, CPOMIN0, PPOORC7, CPOPIP0, PTOTMIN0, CPIPSTM0, CPOSTM0

b. Dependent Variable: TTLMP_0

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	72.266	4.393		16.449	.000					
	PPOORC7	-20.613	9.442	-.202	-2.183	.032	-.524	-.240	-.130	.415	2.410
	PTOTMIN0	-32.307	5.355	-.700	-6.033	.000	-.816	-.564	-.360	.265	3.773
	PIEP0	25.503	16.749	.104	1.523	.132	.287	.170	.091	.769	1.301
	TOTSTU0	-1.51E-04	.000	-.126	-.633	.529	-.011	-.071	-.038	.090	11.136
	CPOMIN0	24.378	29.731	.055	.820	.415	.050	.092	.049	.796	1.257
	CPOSTM0	-9.78E-05	.002	-.009	-.042	.967	-.004	-.005	-.002	.085	11.751
	CPOPIP0	-70.791	181.901	-.033	-.389	.698	-.040	-.044	-.023	.501	1.997
	CPIPSTM0	7.498E-03	.004	.166	1.870	.065	.060	.207	.112	.452	2.212
	CMINSTM0	-7.74E-04	.002	-.059	-.494	.623	.297	-.056	-.029	.246	4.065
	CMINPIP0	92.520	82.979	.091	1.115	.268	.193	.125	.067	.538	1.859

a. Dependent Variable: TTLMP_0

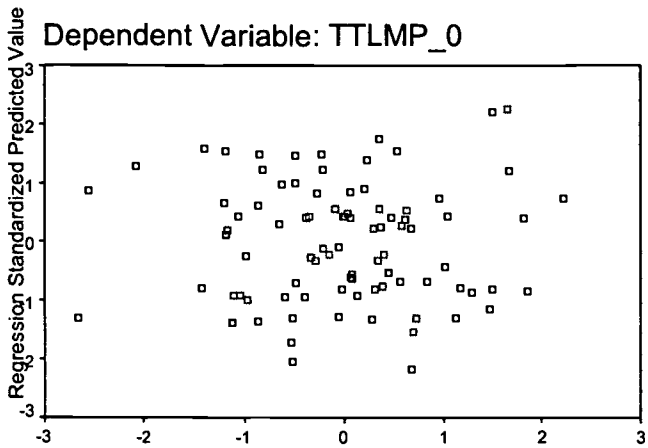
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	29.585	72.852	50.829	9.7740	89
Residual	-17.141	14.315	.000	6.0665	89
Std. Predicted Value	-2.174	2.253	.000	1.000	89
Std. Residual	-2.660	2.222	.000	.941	89

a. Dependent Variable: TTLMP_0

Scatterplot

Dependent Variable: TTLMP_0



Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years – New Mexico

Note:
RANKAVE (or PERFGRP) = Non-Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR = Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKAVE	1.00	150
	2.00	150
	3.00	145
YEAR	1	89
	2	89
	3	89
	4	89
	5	89

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	30039433.2[a]	14	2145673.802	3.857	.000
Intercept	4583417483	1	4583417483	8239.036	.000
RANKAVE	4862621.907	2	2431310.954	4.370	.013
YEAR	23450002.9	4	5862500.732	10.538	.000
RANKAVE * YEAR	1592367.547	8	199045.943	.358	.942
Error	239211167	430	556305.039		
Total	4849794988	445			
Corrected Total	269250600	444			

a. R Squared = .112 (Adjusted R Squared = .083)

200

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKAVE	(J) RANKAVE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-135.15556734995	86.1243317220106	.260	-337.70767186078	67.396537160880
	3.00	-256.59853360415*	86.8636099314969	.009	-460.88931467893	-52.30775252938
2.00	1.00	135.15556734995	86.1243317220106	.260	-67.396537160880	337.70767186078
	3.00	-121.44296625420	86.8636099314969	.343	-325.73374732898	82.847814820574
3.00	1.00	256.59853360415*	86.8636099314969	.009	52.3077525293770	460.88931467893
	2.00	121.44296625420	86.8636099314969	.343	-82.847814820574	325.73374732898

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST

Tukey HSD[a,b,c]

RANKAVE	N	Subset 1	Subset 2
1.00	150	3079.157567668	
2.00	150	3214.313135018	3214.3131350175070
3.00	145		3335.7561012717090
Sig.		.264	.341

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 556305.039.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINST) for Non-Adjusted Performance Groups (PERFGRP) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PCINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.759E-02[a]	14	2.685E-03	1.402	.148
Intercept	127.768	1	127.768	66720.919	.000
PERFGRP	2.550E-02	2	1.275E-02	6.657	.001
YEAR	9.245E-03	4	2.311E-03	1.207	.307
PERFGRP * YEAR	2.722E-03	8	3.402E-04	.178	.994
Error	.823	430	1.915E-03		
Total	128.616	445			
Corrected Total	.861	444			

a. R Squared = .044 (Adjusted R Squared = .013)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINST) for Non-Adjusted Performance Groups (PERFGRP) – New Mexico

Multiple Comparisons

Dependent Variable: PCINST

	(I) PERFGRP	(J) PERFGRP	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	-.011261	.0050530	.068	-.023145	.000623
		3.00	-.018418*	.0050964	.001	-.030404	-.006432
	2.00	1.00	.011261	.0050530	.068	-.000623	.023145
		3.00	-.007157	.0050964	.340	-.019143	.004829
	3.00	1.00	.018418*	.0050964	.001	.006432	.030404
		2.00	.007157	.0050964	.340	-.004829	.019143
Bonferroni	1.00	2.00	-.011261	.0050530	.079	-.023405	.000883
		3.00	-.018418*	.0050964	.001	-.030667	-.006169
	2.00	1.00	.011261	.0050530	.079	-.000883	.023405
		3.00	-.007157	.0050964	.483	-.019406	.005092
	3.00	1.00	.018418*	.0050964	.001	.006169	.030667
		2.00	.007157	.0050964	.483	-.005092	.019406

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST

	PERFGRP	N	Subset 1	Subset 2
Tukey HSD[a,b]	1.00	150	.526011	
	2.00	150	.537272	.537272
	3.00	145		.544429
	Sig.		.070	.337

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.915E-03.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	56604151.7[a]	14	4043153.690	5.222	.000
Intercept	6715708540	1	6715708540	8673.978	.000
RANKAVE	1496962.865	2	748481.433	.967	.381
YEAR	49868681.5	4	12467170.37	16.103	.000
RANKAVE * YEAR	4843632.114	8	605454.014	.782	.619
Error	332921585	430	774236.245		
Total	7107039717	445			
Corrected Total	389525737	444			

a. R Squared = .145 (Adjusted R Squared = .117)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Multiple Comparisons

Dependent Variable: PPCORE

Tukey HSD

(I) RANKAVE	(J) RANKAVE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-141.222334858700	101.602903171275	.347	-380.1778245591	97.733154841692
	3.00	-67.13418177631680	102.475047091968	.790	-308.1408291814	173.87246562876
2.00	1.00	141.2223348586999	101.602903171275	.347	-97.73315484169	380.17782455909
	3.00	74.08815308238300	102.475047091968	.750	-166.9184943227	315.09480048746
3.00	1.00	67.13418177631680	102.475047091968	.790	-173.8724656288	308.14082918140
	2.00	-74.08815308238300	102.475047091968	.750	-315.0948004875	166.91849432270

Based on observed means.

PPCORE

Tukey HSD[a,b,c]

RANKAVE	N	Subset 1
1.00	150	3815.8193305749
3.00	145	3882.9535123512
2.00	150	3957.0416654336
Sig.		.351

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 774236.245.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (PERFGRP) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	9.319E-02[a]	14	6.656E-03	2.511	.002
Intercept	187.193	1	187.193	70607.876	.000
PERFGRP	4.576E-02	2	2.288E-02	8.630	.000
YEAR	4.234E-02	4	1.058E-02	3.992	.003
PERFGRP * YEAR	4.745E-03	8	5.931E-04	.224	.987
Error	1.140	430	2.651E-03		
Total	188.555	445			
Corrected Total	1.233	444			

a. R Squared = .076 (Adjusted R Squared = .045)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (PERFGRP) – New Mexico

Multiple Comparisons

Dependent Variable: PCCORE

	(I) PERFGRP	(J) PERFGRP	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	-.012176	.0059455	.102	-.026159	.001807
		3.00	.012736	.0059965	.086	-.001367	.026839
	2.00	1.00	.012176	.0059455	.102	-.001807	.026159
		3.00	.024912*	.0059965	.000	.010809	.039015
	3.00	1.00	-.012736	.0059965	.086	-.026839	.001367
		2.00	-.024912*	.0059965	.000	-.039015	-.010809
Bonferroni	1.00	2.00	-.012176	.0059455	.124	-.026465	.002113
		3.00	.012736	.0059965	.103	-.001676	.027148
	2.00	1.00	.012176	.0059455	.124	-.002113	.026465
		3.00	.024912*	.0059965	.000	.010500	.039324
	3.00	1.00	-.012736	.0059965	.103	-.027148	.001676
		2.00	-.024912*	.0059965	.000	-.039324	-.010500

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

	PERFGRP	N	Subset 1	Subset 2
Tukey HSD[a,b]	3.00	145	.636115	
	1.00	150	.648851	.648851
	2.00	150		.661027
	Sig.		.085	.105

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 2.651E-03.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	871671.793[a]	14	62262.271	.880	.581
Intercept	39920524.7	1	39920524.71	563.933	.000
RANKAVE	296638.547	2	148319.274	2.095	.124
YEAR	458563.139	4	114640.785	1.619	.168
RANKAVE * YEAR	111015.856	8	13876.982	.196	.991
Error	30439471.8	430	70789.469		
Total	71238968.0	445			
Corrected Total	31311143.6	444			

a. R Squared = .028 (Adjusted R Squared = -.004)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKAVE	(J) RANKAVE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-62.868413502748	30.722297964232	.103	-135.1228622008	9.386035195327
	3.00	-32.884968455657	30.986013513324	.539	-105.7596383896	39.98970147831
2.00	1.00	62.868413502748	30.722297964232	.103	-9.386035195327	135.1228622008
	3.00	29.983445047091	30.986013513324	.598	-42.89122488688	102.8581149811
3.00	1.00	32.884968455657	30.986013513324	.539	-39.98970147831	105.7596383896
	2.00	-29.983445047091	30.986013513324	.598	-102.8581149811	42.89122488688

Based on observed means.

PPGESUP

Tukey HSD[a,b,c]

RANKAVE	N	Subset 1
1.00	150	267.635137026550
3.00	145	300.520105482207
2.00	150	330.503550529298
Sig.		.105

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 70789.469.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (Pct Gen Adm to Current) for Non-Adjusted Performance Groups (RANKAVE) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: Pct Gen Adm to Current

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.489E-03[a]	14	2.492E-04	.415	.970
Intercept	.870	1	.870	1447.391	.000
YEAR	1.704E-03	4	4.260E-04	.709	.586
RANKAVE	9.621E-04	2	4.810E-04	.801	.450
YEAR * RANKAVE	8.193E-04	8	1.024E-04	.170	.995
Error	.258	430	6.008E-04		
Total	1.131	445			
Corrected Total	.262	444			

a. R Squared = .013 (Adjusted R Squared = -.019)

Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years – New Mexico

Note:
RANKDIF (or ADJPERF) = Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR= Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKDIF	1.00	150
	2.00	150
	3.00	145
YEAR	1	89
	2	89
	3	89
	4	89
	5	89

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKDIF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	41428760.8[a]	14	2959197.203	5.585	.000
Intercept	4584679377	1	4584679377	8653.306	.000
RANKDIF	16320458.0	2	8160229.000	15.402	.000
YEAR	23523498.3	4	5880874.567	11.100	.000
RANKDIF * YEAR	1523859.068	8	190482.383	.360	.941
Error	227821839	430	529818.230		
Total	4849794988	445			
Corrected Total	269250600	444			

a. R Squared = .154 (Adjusted R Squared = .126)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKDIF) – New Mexico

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKDIF	(J) RANKDIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	370.73078002594230*	84.049051566079	.000	173.05943748596	568.40212256593
	3.00	-62.63813457044170	84.770515885261	.740	-262.00625795340	136.72998881251
2.00	1.00	-370.7307800259423*	84.049051566079	.000	-568.40212256593	-173.0594374860
	3.00	-433.3689145963840*	84.770515885261	.000	-632.73703797934	-234.0007912134
3.00	1.00	62.63813457044170	84.770515885261	.740	-136.72998881251	262.00625795340
	2.00	433.36891459638400*	84.770515885261	.000	234.00079121343	632.73703797934

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST

Tukey HSD[a,b,c]

RANKDIF	N	Subset	
		1	2
2.00	150	2942.150854982	
1.00	150		3312.881635007
3.00	145		3375.519769578
Sig.		1.000	.739

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 529818.230.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

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ANOVA for Percent Instruction to Current Expenditures (PCINST) for Adjusted Performance Groups (ADJPERF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PCINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3.982E-02[a]	14	2.844E-03	1.489	.111
Intercept	127.709	1	127.709	66870.900	.000
YEAR	9.424E-03	4	2.356E-03	1.234	.296
ADJPERF	2.952E-02	2	1.476E-02	7.729	.001
YEAR * ADJPERF	9.258E-04	8	1.157E-04	.061	1.000
Error	.821	430	1.910E-03		
Total	128.616	445			
Corrected Total	.861	444			

a. R Squared = .046 (Adjusted R Squared = .015)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINSTRU) for Adjusted Performance Groups (ADJPERF) – New Mexico

Multiple Comparisons

Dependent Variable: PCINST

	(I) ADJPERF	(J) ADJPERF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	-.019333*	.0050462	.000	-.031201	-.007466
		3.00	-.005766	.0050895	.494	-.017735	.006204
	2.00	1.00	.019333*	.0050462	.000	.007466	.031201
		3.00	.013568*	.0050895	.022	.001598	.025538
	3.00	1.00	.005766	.0050895	.494	-.006204	.017735
		2.00	-.013568*	.0050895	.022	-.025538	-.001598
Bonferroni	1.00	2.00	-.019333*	.0050462	.000	-.031461	-.007206
		3.00	-.005766	.0050895	.774	-.017997	.006466
	2.00	1.00	.019333*	.0050462	.000	.007206	.031461
		3.00	.013568*	.0050895	.024	.001336	.025800
	3.00	1.00	.005766	.0050895	.774	-.006466	.017997
		2.00	-.013568*	.0050895	.024	-.025800	-.001336

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST

	ADJPERF	N	Subset 1	Subset 2
Tukey HSD[a,b]	1.00	150	.527412	
	3.00	145	.533178	
	2.00	150		.546746
	Sig.		.492	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.910E-03.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKDIF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	73191355.1[a]	14	5227953.935	7.106	.000
Intercept	6721411542	1	6721411542	9136.557	.000
RANKDIF	19271245.1	2	9635622.536	13.098	.000
YEAR	50091365.6	4	12522841.40	17.023	.000
RANKDIF * YEAR	3656553.343	8	457069.168	.621	.760
Error	316334382	430	735661.353		
Total	7107039717	445			
Corrected Total	389525737	444			

a. R Squared = .188 (Adjusted R Squared = .161)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKDIF) – New Mexico

Multiple Comparisons

Dependent Variable: PPCORE

Tukey HSD

(I) RANKDIF	(J) RANKDIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	442.424342759114*	99.039477196267	.000	209.49766414630	675.35102137193
	3.00	4.50192195059981	99.889617056934	.999	-230.4241639663	239.42800786753
2.00	1.00	-442.424342759114*	99.039477196267	.000	-675.3510213719	-209.49766414630
	3.00	-437.922420808514*	99.889617056934	.000	-672.8485067254	-202.99633489159
3.00	1.00	-4.50192195059981	99.889617056934	.999	-239.4280078675	230.42416396633
	2.00	437.922420808514*	99.889617056934	.000	202.99633489159	672.84850672544

Based on observed means.

*. The mean difference is significant at the .05 level.

PPCORE

Tukey HSD[a,b,c]

RANKDIF	N	Subset 1	Subset 2
2.00	150	3593.471924182	
3.00	145		4031.39434499072
1.00	150		4035.89626694132
Sig.		1.000	.999

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 735661.353.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (ADJPERF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.117[a]	14	8.349E-03	3.216	.000
Intercept	187.206	1	187.206	72112.052	.000
YEAR	4.256E-02	4	1.064E-02	4.098	.003
ADJPERF	7.100E-02	2	3.550E-02	13.675	.000
YEAR * ADJPERF	3.200E-03	8	4.000E-04	.154	.996
Error	1.116	430	2.596E-03		
Total	188.555	445			
Corrected Total	1.233	444			

a. R Squared = .095 (Adjusted R Squared = .065)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (ADJPERF) – New Mexico

Multiple Comparisons

Dependent Variable: PCCORE

	(I) ADJPERF	(J) ADJPERF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	1.00	2.00	-.024923*	.0058834	.000	-.038760	-.011086
		3.00	.003343	.0059339	.840	-.010613	.017298
	2.00	1.00	.024923*	.0058834	.000	.011086	.038760
		3.00	.028266*	.0059339	.000	.014310	.042221
	3.00	1.00	-.003343	.0059339	.840	-.017298	.010613
		2.00	-.028266*	.0059339	.000	-.042221	-.014310
Bonferroni	1.00	2.00	-.024923*	.0058834	.000	-.039063	-.010783
		3.00	.003343	.0059339	1.000	-.010919	.017604
	2.00	1.00	.024923*	.0058834	.000	.010783	.039063
		3.00	.028266*	.0059339	.000	.014004	.042527
	3.00	1.00	-.003343	.0059339	1.000	-.017604	.010919
		2.00	-.028266*	.0059339	.000	-.042527	-.014004

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

	ADJPERF	N	Subset 1	Subset 2
Tukey HSD[a,b]	3.00	145	.638151	
	1.00	150	.641493	
	2.00	150		.666416
	Sig.		.839	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 2.596E-03.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKDIF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1526827.668[a]	14	109059.119	1.575	.083
Intercept	40064163.9	1	40064163.94	578.411	.000
RANKDIF	979420.735	2	489710.368	7.070	.001
YEAR	467762.732	4	116940.683	1.688	.152
RANKDIF * YEAR	83389.544	8	10423.693	.150	.997
Error	29784316.0	430	69265.851		
Total	71238968.0	445			
Corrected Total	31311143.6	444			

a. R Squared = .049 (Adjusted R Squared = .018)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKDIF) – New Mexico

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKDIF	(J) RANKDIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	77.782301449613*	30.3898779420104	.029	6.30965707717081	149.25494582206
	3.00	-34.44018565525	30.6507400480177	.500	-106.526340373753	37.645969063250
2.00	1.00	-77.78230144961*	30.3898779420104	.029	-149.254945822055	-6.3096570771708
	3.00	-112.2224871049*	30.6507400480177	.001	-184.308641823366	-40.136332386363
3.00	1.00	34.440185655252	30.6507400480177	.500	-37.6459690632501	106.52634037375
	2.00	112.22248710486*	30.6507400480177	.001	40.13633238636287	184.30864182337

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP

Tukey HSD[a,b,c]

RANKDIF	N	Subset 1	Subset 2
2.00	150	236.75643276551	
1.00	150		314.53873421512
3.00	145		348.97891987037
Sig.		1.000	.498

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 69265.851.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (Pct Gen Adm to Current) for Adjusted Performance Groups (RANKDIF) – New Mexico

Tests of Between-Subjects Effects

Dependent Variable: Pct Gen Adm to Current

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.443E-02[a]	14	1.031E-03	1.792	.037
Intercept	.872	1	.872	1515.249	.000
RANKDIF	1.186E-02	2	5.929E-03	10.304	.000
YEAR	1.732E-03	4	4.329E-04	.752	.557
RANKDIF * YEAR	8.660E-04	8	1.082E-04	.188	.992
Error	.247	430	5.754E-04		
Total	1.131	445			
Corrected Total	.262	444			

a. R Squared = .055 (Adjusted R Squared = .024)

Post Hoc Test on Percent General Administration Expenditures (PCGESUP) for Adjusted Performance Groups (RANKDIF) – New Mexico

Multiple Comparisons

Dependent Variable: Pct Gen Adm to Current

Tukey HSD

(I) RANKDIF	(J) RANKDIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.007524*	.0027698	.019	.001010	.014038
	3.00	-.005062	.0027936	.167	-.011632	.001508
2.00	1.00	-.007524*	.0027698	.019	-.014038	-.001010
	3.00	-.012586*	.0027936	.000	-.019156	-.006016
3.00	1.00	.005062	.0027936	.167	-.001508	.011632
	2.00	.012586*	.0027936	.000	.006016	.019156

Based on observed means.

*. The mean difference is significant at the .05 level.

Pct Gen Adm to Current

Tukey HSD[a,b,c]

RANKDIF	N	Subset 1	Subset 2
2.00	150	.037565	
1.00	150		.045089
3.00	145		.050151
Sig.		1.000	.165

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 5.754E-04.

a. Uses Harmonic Mean Sample Size = 148.295.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Research Question 1 Statistical Analyses – Texas

Texas Regression 1998

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.669[a]	.448	.440	3.981554	.448	55.424	15	1026	.000

a. Predictors: (Constant), CSTMPIP8, CFREPIP8, PBLACK8, PIEP8, CBLAPIP8, PFREELU8, CFREBLA8, CFREHIS8, CFRESTM8, CHISBLA8, CHISPIP8, PHISPAN8, CHISSTM8, CBLASTM8, STUDMEM8

b. Dependent Variable: REDMTH_8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	80.940	.589		137.329	.000					
	PFREELU8	-10.595	1.162	-.350	-9.119	.000	-.582	-.274	-.212	.366	2.732
	PHISPAN8	-4.544	.894	-.228	-5.083	.000	-.343	-.157	-.118	.267	3.739
	PBLACK8	-13.333	1.911	-.304	-6.979	.000	-.306	-.213	-.162	.285	3.513
	PIEP8	-25.451	3.479	-.218	-7.316	.000	-.175	-.223	-.170	.608	1.645
	STUDMEM8	7.509E-06	.000	.016	.215	.830	-.091	.007	.005	.097	10.329
	CFREHIS8	3.059	2.707	.037	1.130	.259	-.140	.035	.026	.506	1.975
	CFREBLA8	-2.758	6.284	-.013	-.439	.661	-.080	-.014	-.010	.605	1.652
	CFREPIP8	2.093	17.276	.004	.121	.904	.159	.004	.003	.536	1.866
	CFRESTM8	8.922E-05	.000	.041	.525	.600	-.100	.016	.012	.086	11.577
	CHISBLA8	-7.612	8.335	-.035	-.913	.361	.378	-.028	-.021	.360	2.778
	CHISPIP8	64.351	15.361	.144	4.189	.000	.329	.130	.097	.458	2.182
	CHISSTM8	-1.37E-04	.000	-.079	-1.067	.286	-.126	-.033	-.025	.098	10.162
	CBLASTM8	-9.45E-05	.000	-.045	-.598	.550	-.074	-.019	-.014	.097	10.317
	CBLAPIP8	-8.446	23.120	-.010	-.365	.715	-.032	-.011	-.008	.733	1.364
	CSTMPIP8	-2.72E-04	.001	-.025	-.418	.676	.141	-.013	-.010	.156	6.419

a. Dependent Variable: REDMTH_8

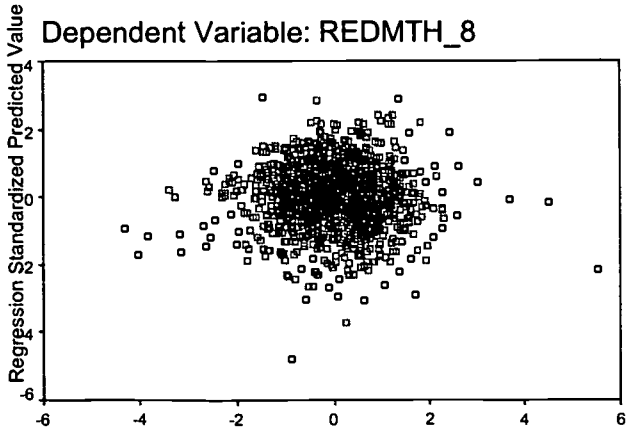
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	53.77721	81.35473	70.92481	3.558144	1042
Residual	-17.18525	22.04965	.00000	3.952765	1042
Std. Predicted Value	-4.819	2.931	.000	1.000	1042
Std. Residual	-4.316	5.538	.000	.993	1042

a. Dependent Variable: REDMTH_8

Scatterplot

Dependent Variable: REDMTH_8



Texas Regression 1999

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.682[a]	.466	.458	3.818659	.466	59.576	15	1026	.000

a. Predictors: (Constant), CSTMPIP9, CFREHIS9, CBLAPIP9, CHISBLA9, PIEP9, CFREBLA9, CFREPIP9, PFREELU9, CHISPIP9, CFRESTM9, PBLACK9, CHISSTM9, PHISPAN9, CBLASTM9, STUDMEM9

b. Dependent Variable: REDMTH_9

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	82.000	.568		144.452	.000					
	PFREELU9	-11.827	1.143	-.392	-10.352	.000	-.609	-.308	-.236	.363	2.752
	PHISPAN9	-2.982	.849	-.154	-3.513	.000	-.338	-.109	-.080	.273	3.668
	PBLACK9	-12.194	1.844	-.284	-6.612	.000	-.313	-.202	-.151	.282	3.544
	PIEP9	-22.031	3.400	-.193	-6.479	.000	-.195	-.198	-.148	.588	1.700
	STUDMEM9	7.510E-06	.000	.017	.213	.831	-.076	.007	.005	.086	11.631
	CFREHIS9	5.206E-02	2.684	.001	.019	.985	-.136	.001	.000	.552	1.812
	CFREBLA9	.581	5.813	.003	.100	.920	-.088	.003	.002	.594	1.684
	CFREPIP9	-12.563	14.603	-.025	-.860	.390	.107	-.027	-.020	.613	1.632
	CFRESTM9	9.458E-05	.000	.043	.585	.559	-.075	.018	.013	.096	10.403
	CHISBLA9	-3.349	7.668	-.016	-.437	.662	.386	-.014	-.010	.382	2.618
	CHISPIP9	72.053	14.126	.160	5.101	.000	.330	.157	.116	.528	1.893
	CHISSTM9	-1.27E-04	.000	-.076	-1.134	.257	-.111	-.035	-.026	.115	8.708
	CBLASTM9	-9.47E-05	.000	-.045	-.587	.557	-.065	-.018	-.013	.088	11.373
	CBLAPIP9	-20.299	22.266	-.024	-.912	.362	-.031	-.028	-.021	.762	1.312
	CSTMPIP9	-2.17E-04	.001	-.021	-.353	.724	.134	-.011	-.008	.154	6.482

a. Dependent Variable: REDMTH_9

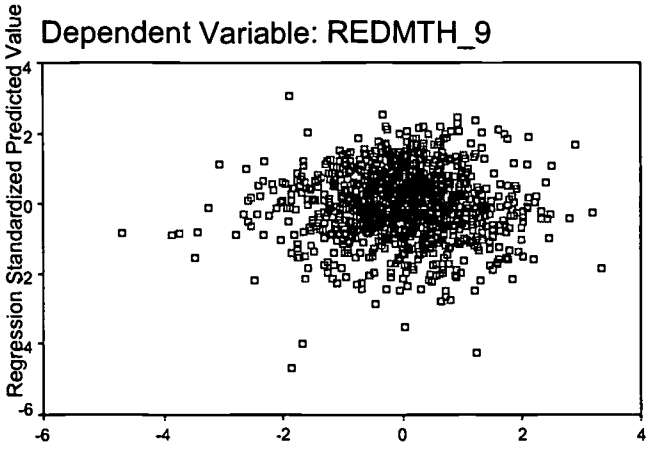
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	55.84436	83.18555	72.39658	3.538070	1042
Residual	-17.81157	12.79032	.00000	3.791048	1042
Std. Predicted Value	-4.678	3.049	.000	1.000	1042
Std. Residual	-4.664	3.349	.000	.993	1042

a. Dependent Variable: REDMTH_9

Scatterplot

Dependent Variable: REDMTH_9



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Texas Regression 2000

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.667[a]	.444	.436	3.519250	.444	54.637	15	1025	.000

a. Predictors: (Constant), CSTMPIP0, CFREPIP0, PBLACK0, PIEP0, PFREELU0, CBLAPIP0, CFREBLA0, CFREHIS0, CHISPIP0, CFRESTM0, CHISBLA0, CHISSTM0, PHISPAN0, CBLASTM0, TOTSTU0

b. Dependent Variable: REDMTH 0

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	85.579	.521		164.311	.000					
	PFREELU0	-8.965	1.031	-.327	-8.699	.000	-.537	-.262	-.203	.385	2.600
	PHISPAN0	-3.553	.759	-.203	-4.683	.000	-.269	-.145	-.109	.288	3.467
	PBLACK0	-9.200	1.669	-.238	-5.512	.000	-.280	-.170	-.128	.290	3.451
	PIEP0	-38.545	3.153	-.361	-12.226	.000	-.339	-.357	-.285	.621	1.612
	TOTSTU0	-4.84E-05	.000	-.119	-1.482	.139	-.071	-.046	-.035	.084	11.919
	CFREHIS0	-1.287	2.501	-.016	-.515	.607	-.069	-.016	-.012	.579	1.727
	CFREBLA0	-8.883	5.338	-.050	-1.664	.096	-.115	-.052	-.039	.597	1.675
	CFREPIP0	-21.638	14.991	-.045	-1.443	.149	.083	-.045	-.034	.558	1.794
	CFRESTM0	7.367E-06	.000	.004	.051	.959	-.056	.002	.001	.104	9.609
	CHISBLA0	-10.076	7.016	-.054	-1.436	.151	.278	-.045	-.033	.381	2.626
	CHISPIP0	55.395	13.550	.134	4.088	.000	.251	.127	.095	.504	1.986
	CHISSTM0	-5.36E-05	.000	-.036	-.544	.587	-.102	-.017	-.013	.121	8.234
	CBLASTM0	7.635E-05	.000	.039	.513	.608	-.053	.016	.012	.094	10.663
	CBLAPIP0	74.238	22.098	.094	3.359	.001	.062	.104	.078	.693	1.444
	CSTMPIP0	-8.52E-04	.001	-.089	-1.550	.122	.140	-.048	-.036	.166	6.027

a. Dependent Variable: REDMTH_0

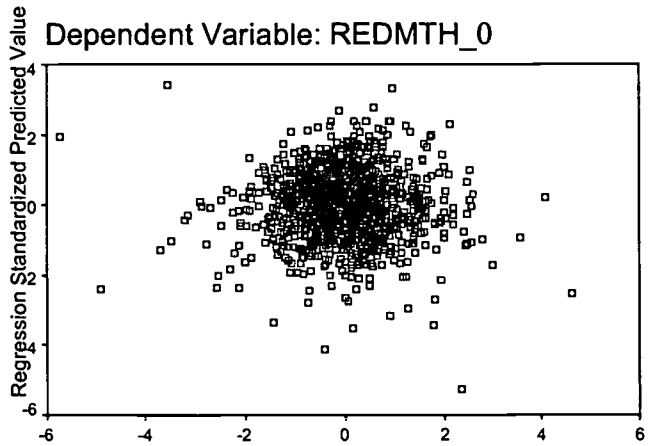
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	58.29772	85.36485	74.71250	3.124071	1041
Residual	-20.13689	16.30920	.00000	3.493779	1041
Std. Predicted Value	-5.254	3.410	.000	1.000	1041
Std. Residual	-5.722	4.634	.000	.993	1041

a. Dependent Variable: REDMTH 0

Scatterplot

Dependent Variable: REDMTH_0



Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Non-Adjusted Performance Groups and Years – Texas

Note:
RANKAVSC = Non-Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR= Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKAVSC	1.00	1735
	2.00	1735
	3.00	1740
YEAR	1	1042
	2	1042
	3	1042
	4	1042
	5	1042

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	86231603.4[a]	14	6159400.245	6.707	.000
Intercept	7.651E+10	1	7.651E+10	83310.331	.000
RANKAVSC	14996157.4	2	7498078.695	8.165	.000
YEAR	69313925.6	4	17328481.40	18.869	.000
RANKAVSC * YEAR	1911814.653	8	238976.832	.260	.978
Error	4770752033	5195	918335.329		
Total	8.137E+10	5210			
Corrected Total	4856983636	5209			

a. R Squared = .018 (Adjusted R Squared = .015)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-15.99646377802	32.536130725694	.875	-92.27331955182	60.280391995773
	3.00	-120.9078991582*	32.512748666817	.001	-197.1299386434	-44.68585967304
2.00	1.00	15.996463778022	32.536130725694	.875	-60.28039199577	92.273319551816
	3.00	-104.9114353802*	32.512748666817	.004	-181.1334748653	-28.68939589502
3.00	1.00	120.90789915820*	32.512748666817	.001	44.685859673037	197.12993864337
	2.00	104.91143538018*	32.512748666817	.004	28.689395895015	181.13347486535

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2
1.00	1735	3786.4191647224	
2.00	1735	3802.4156285005	
3.00	1740		3907.3270638807
Sig.		.875	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 918335.329.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINST) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PCINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.266[a]	14	1.897E-02	11.288	.000
Intercept	2027.754	1	2027.754	1206470	.000
RANKAVSC	8.483E-02	2	4.241E-02	25.235	.000
YEAR	.171	4	4.281E-02	25.473	.000
RANKAVSC * YEAR	9.523E-03	8	1.190E-03	.708	.685
Error	8.731	5195	1.681E-03		
Total	2036.761	5210			
Corrected Total	8.997	5209			

a. R Squared = .030 (Adjusted R Squared = .027)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINST) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PCINST

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.009721*	.0013919	.000	-.012984	-.006458
	3.00	-.006428*	.0013909	.000	-.009689	-.003168
2.00	1.00	.009721*	.0013919	.000	.006458	.012984
	3.00	.003292*	.0013909	.047	.000032	.006553
3.00	1.00	.006428*	.0013909	.000	.003168	.009689
	2.00	-.003292*	.0013909	.047	-.006553	-.000032

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2	Subset 3
1.00	1735	.618480		
3.00	1740		.624908	
2.00	1735			.628201
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.681E-03.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	104479970[a]	14	7462855.010	7.109	.000
Intercept	9.286E+10	1	9.286E+10	88458.339	.000
RANKAVSC	4242857.179	2	2121428.590	2.021	.133
YEAR	97823916.3	4	24455979.07	23.296	.000
RANKAVSC * YEAR	2400850.889	8	300106.361	.286	.971
Error	5453719417	5195	1049801.620		
Total	9.842E+10	5210			
Corrected Total	5558199387	5209			

a. R Squared = .019 (Adjusted R Squared = .016)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PPCORE

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-1.65220276214	34.787152223342	.999	-83.20629458983	79.90188906555
	3.00	-61.3166433670	34.762152470043	.182	-142.8121264255	20.17883969146
2.00	1.00	1.652202762139	34.787152223342	.999	-79.90188906555	83.20629458983
	3.00	-59.6644406049	34.762152470043	.199	-141.1599236633	21.83104245360
3.00	1.00	61.31664336701	34.762152470043	.182	-20.17883969146	142.8121264255
	2.00	59.66444060488	34.762152470043	.199	-21.83104245360	141.1599236633

Based on observed means.

PPCORE

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1
1.00	1735	4200.877373962150
2.00	1735	4202.529576724290
3.00	1740	4262.194017329165
Sig.		.182

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1049801.620.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.356[a]	14	2.544E-02	12.480	.000
Intercept	2469.183	1	2469.183	1211219	.000
RANKAVSC	.115	2	5.737E-02	28.143	.000
YEAR	.229	4	5.731E-02	28.111	.000
RANKAVSC * YEAR	1.218E-02	8	1.523E-03	.747	.650
Error	10.590	5195	2.039E-03		
Total	2480.099	5210			
Corrected Total	10.947	5209			

a. R Squared = .033 (Adjusted R Squared = .030)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PCCORE

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.007431*	.0015330	.000	-.011025	-.003837
	3.00	.003879*	.0015319	.031	.000288	.007470
2.00	1.00	.007431*	.0015330	.000	.003837	.011025
	3.00	.011310*	.0015319	.000	.007719	.014901
3.00	1.00	-.003879*	.0015319	.031	-.007470	-.000288
	2.00	-.011310*	.0015319	.000	-.014901	-.007719

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2	Subset 3
3.00	1740	.683364		
1.00	1735		.687244	
2.00	1735			.694674
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on Type III Sum of Squares

The error term is Mean Square(Error) = 2.039E-03.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	40900977.4[a]	14	2921498.388	36.718	.000
Intercept	578438196	1	578438195.9	7269.988	.000
RANKAVSC	4141750.888	2	2070875.444	26.027	.000
YEAR	36215144.6	4	9053786.160	113.791	.000
RANKAVSC * YEAR	533719.033	8	66714.879	.838	.568
Error	413341301	5195	79565.217		
Total	1032814344	5210			
Corrected Total	454242279	5209			

a. R Squared = .090 (Adjusted R Squared = .088)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.08733077453718	9.5769425798144	1.000	-22.539265027971	22.36460347890
	3.00	-59.825761751317*	9.5700601192921	.000	-82.261560943915	-37.3899625587
2.00	1.00	.08733077453718	9.5769425798144	1.000	-22.364603478897	22.53926502797
	3.00	-59.738430976780*	9.5700601192921	.000	-82.174230169378	-37.3026317842
3.00	1.00	59.8257617513175*	9.5700601192921	.000	37.389962558720	82.26156094392
	2.00	59.7384309767803*	9.5700601192921	.000	37.302631784183	82.17423016938

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2
1.00	1735	313.23282577205	
2.00	1735	313.32015654659	
3.00	1740		373.058587523371
Sig.		1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 79565.217.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.009[a]	14	7.209E-02	99.189	.000
Intercept	13.129	1	13.129	18064.320	.000
RANKAVSC	4.676E-02	2	2.338E-02	32.168	.000
YEAR	.957	4	.239	329.021	.000
RANKAVSC * YEAR	5.813E-03	8	7.266E-04	1.000	.434
Error	3.776	5195	7.268E-04		
Total	17.916	5210			
Corrected Total	4.785	5209			

a. R Squared = .211 (Adjusted R Squared = .209)

Post Hoc Test on Percent General Administration Expenditures (PGESUP) for Non-Adjusted Performance Groups (RANKAVSC) – Texas

Multiple Comparisons

Dependent Variable: PGESUP

Tukey HSD

(I) RANKAVSC	(J) RANKAVSC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.0012	.00092	.383	-.0009	.0034
	3.00	-.0057*	.00091	.000	-.0078	-.0035
2.00	1.00	-.0012	.00092	.383	-.0034	.0009
	3.00	-.0069*	.00091	.000	-.0090	-.0047
3.00	1.00	.0057*	.00091	.000	.0035	.0078
	2.00	.0069*	.00091	.000	.0047	.0090

Based on observed means.

*. The mean difference is significant at the .05 level.

PGESUP

Tukey HSD[a,b,c]

RANKAVSC	N	Subset 1	Subset 2
2.00	1735	.0475	
1.00	1735	.0487	
3.00	1740		.0544
Sig.		.383	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7.268E-04.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Univariate Analysis of Variance (ANOVA) for Fiscal Variables on Adjusted Performance Groups and Years – Texas

Note:
RANKADIF = Adjusted Performance Groups, 1 = Low Performance 2 = Mid-Performance 3 = High Performance
YEAR = Year of fiscal data, 1 = 1994-95, 2 = 1995-96, 3 = 1996-97, 4 = 1997-98, 5 = 1998-99

There was no significance found between years for the fiscal variables, nor for the interaction between years and performance groups.

Between-Subjects Factors

		N
RANKADIF	1.00	1735
	2.00	1740
	3.00	1735
YEAR	1	1042
	2	1042
	3	1042
	4	1042
	5	1042

ANOVA for Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	192337814[a]	14	13738415.29	15.300	.000
Intercept	7.651E+10	1	7.651E+10	85212.880	.000
RANKADIF	122594377	2	61297188.65	68.266	.000
YEAR	69319730.4	4	17329932.60	19.300	.000
RANKADIF * YEAR	419805.395	8	52475.674	.058	1.000
Error	4664645822	5195	897910.649		
Total	8.137E+10	5210			
Corrected Total	4856983636	5209			

a. R Squared = .040 (Adjusted R Squared = .037)

Post Hoc Test on Per-Pupil Instruction Expenditures (PPINST) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Dependent Variable: PPINST

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-16.00719224845671	32.149157914433	.872	-91.3768390624	59.36245456550
	3.00	-333.201495723439*	32.172278491254	.000	-408.625345814	-257.777645633
2.00	1.00	16.00719224845671	32.149157914433	.872	-59.3624545655	91.37683906241
	3.00	-317.194303474982*	32.149157914433	.000	-392.563950289	-241.824656661
3.00	1.00	333.2014957234387*	32.172278491254	.000	257.7776456326	408.6253458143
	2.00	317.1943034749820*	32.149157914433	.000	241.8246566610	392.5639502889

Based on observed means.

*. The mean difference is significant at the .05 level.

PPINST

Tukey HSD[a,b,c]

RANKADIF	N	Subset 1	Subset 2
1.00	1735	3715.819644492	
2.00	1740	3731.826836740	
3.00	1735		4049.0211402151
Sig.		.872	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 897910.649.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Instruction to Current Expenditures (PCINST) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PCINST

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.213[a]	14	1.521E-02	8.996	.000
Intercept	2027.736	1	2027.736	1199230	.000
RANKADIF	3.917E-02	2	1.959E-02	11.584	.000
YEAR	.171	4	4.282E-02	25.322	.000
RANKADIF * YEAR	2.533E-03	8	3.167E-04	.187	.993
Error	8.784	5195	1.691E-03		
Total	2036.761	5210			
Corrected Total	8.997	5209			

a. R Squared = .024 (Adjusted R Squared = .021)

Post Hoc Test on Percent Instruction to Current Expenditures (PCINST) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Dependent Variable: PCINST

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.005013*	.0013951	.001	-.008284	-.001743
	3.00	.001361	.0013961	.593	-.001912	.004634
2.00	1.00	.005013*	.0013951	.001	.001743	.008284
	3.00	.006374*	.0013951	.000	.003103	.009645
3.00	1.00	-.001361	.0013961	.593	-.004634	.001912
	2.00	-.006374*	.0013951	.000	-.009645	-.003103

Based on observed means.

*. The mean difference is significant at the .05 level.

PCINST

Tukey HSD[a,b,c]

RANKADIF	N	Subset 1	Subset 2
3.00	1735	.621282	
1.00	1735	.622643	
2.00	1740		.627656
Sig.		.593	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1.691E-03.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	230560079[a]	14	16468577.06	16.059	.000
Intercept	9.287E+10	1	9.287E+10	90557.548	.000
RANKADIF	132099391	2	66049695.41	64.405	.000
YEAR	97826594.9	4	24456648.73	23.848	.000
RANKADIF * YEAR	624425.901	8	78053.238	.076	1.000
Error	5327639308	5195	1025532.109		
Total	9.842E+10	5210			
Corrected Total	5558199387	5209			

a. R Squared = .041 (Adjusted R Squared = .039)

Post Hoc Test on Per-Pupil Core Expenditures (PPCORE) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Deoendent Variable: PPCORE

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-22.9237000346	34.3579839187915	.783	-103.47166088913	57.62426081999
	3.00	-348.758182386*	34.3826930078671	.000	-429.36407058374	-268.1522941874
2.00	1.00	22.92370003457	34.3579839187915	.783	-57.624260819990	103.4716608891
	3.00	-325.834482351*	34.3579839187915	.000	-406.38244320558	-245.2865214965
3.00	1.00	348.7581823856*	34.3826930078671	.000	268.152294187441	429.3640705837
	2.00	325.8344823510*	34.3579839187915	.000	245.286521496466	406.3824432056

Based on observed means.

*. The mean difference is significant at the .05 level.

PPCORE

Tukey HSD[a,b,c]

RANKADIF	N	Subset 1	Subset 2
1.00	1735	4098.108630536	
2.00	1740	4121.032330571	
3.00	1735		4446.86681292198
Sig.		.783	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 1025532.109.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PCCORE

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.341[a]	14	2.436E-02	11.933	.000
Intercept	2469.107	1	2469.107	1209454	.000
RANKADIF	.108	2	5.417E-02	26.532	.000
YEAR	.229	4	5.731E-02	28.074	.000
RANKADIF * YEAR	3.467E-03	8	4.334E-04	.212	.989
Error	10.606	5195	2.042E-03		
Total	2480.099	5210			
Corrected Total	10.947	5209			

a. R Squared = .031 (Adjusted R Squared = .029)

Post Hoc Test on Percent Core to Current Expenditures (PCCORE) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Dependent Variable: PCCORE

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-.007060*	.0015330	.000	-.010654	-.003466
	3.00	.003961*	.0015341	.027	.000365	.007557
2.00	1.00	.007060*	.0015330	.000	.003466	.010654
	3.00	.011021*	.0015330	.000	.007427	.014615
3.00	1.00	-.003961*	.0015341	.027	-.007557	-.000365
	2.00	-.011021*	.0015330	.000	-.014615	-.007427

Based on observed means.

*. The mean difference is significant at the .05 level.

PCCORE

Tukey HSD[a,b,c]

RANKADIF	N	Subset 1	2	3
3.00	1735	.683423		
1.00	1735		.687384	
2.00	1740			.694444
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 2.042E-03.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PPGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	46425817.9[a]	14	3316129.853	42.243	.000
Intercept	578714448	1	578714447.7	7371.997	.000
RANKADIF	9521489.978	2	4760744.989	60.645	.000
YEAR	36234322.5	4	9058580.635	115.393	.000
RANKADIF * YEAR	678820.454	8	84852.557	1.081	.373
Error	407816461	5195	78501.725		
Total	1032814344	5210			
Corrected Total	454242279	5209			

a. R Squared = .102 (Adjusted R Squared = .100)

Post Hoc Test on Per-Pupil General Administration Expenditures (PPGESUP) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Dependent Variable: PPGESUP

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	27.79889297106*	9.505886849443560	.010	5.51353991756095	50.084246024567
	3.00	-73.5319590988*	9.512723158741010	.000	-95.833339017387	-51.230579180164
2.00	1.00	-27.7988929711*	9.505886849443560	.010	-50.084246024567	-5.5135399175609
	3.00	-101.330852070*	9.505886849443560	.000	-123.61620512334	-79.045499016336
3.00	1.00	73.53195909878*	9.512723158741010	.000	51.230579180164	95.833339017387
	2.00	101.3308520698*	9.505886849443560	.000	79.045499016336	123.61620512334

Based on observed means.

*. The mean difference is significant at the .05 level.

PPGESUP

Tukey HSD[a,b,c]

RANKADIF	N	Subset		
		1	2	3
2.00	1740	290.2401648690		
1.00	1735		318.039057840074	
3.00	1735			391.57101693885
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 78501.725.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

ANOVA for Percent General Administration to Current Expenditures (PGESUP) for Adjusted Performance Groups (RANKADIF) – Texas

Tests of Between-Subjects Effects

Dependent Variable: PGESUP

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.038[a]	14	7.417E-02	102.848	.000
Intercept	13.134	1	13.134	18210.866	.000
RANKADIF	7.724E-02	2	3.862E-02	53.552	.000
YEAR	.957	4	.239	331.683	.000
RANKADIF * YEAR	4.482E-03	8	5.602E-04	.777	.623
Error	3.747	5195	7.212E-04		
Total	17.916	5210			
Corrected Total	4.785	5209			

a. R Squared = .217 (Adjusted R Squared = .215)

Post Hoc Test on Percent General Administration Expenditures (PGESUP) for Adjusted Performance Groups (RANKADIF) – Texas

Multiple Comparisons

Dependent Variable: PGESUP

Tukey HSD

(I) RANKADIF	(J) RANKADIF	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	.0039*	.00091	.000	.0017	.0060
	3.00	-.0055*	.00091	.000	-.0076	-.0034
2.00	1.00	-.0039*	.00091	.000	-.0060	-.0017
	3.00	-.0094*	.00091	.000	-.0115	-.0072
3.00	1.00	.0055*	.00091	.000	.0034	.0076
	2.00	.0094*	.00091	.000	.0072	.0115

Based on observed means.

*. The mean difference is significant at the .05 level.

PGESUP

Tukey HSD[a,b,c]

RANKADIF	N	Subset 1	Subset 2	Subset 3
2.00	1740	.0458		
1.00	1735		.0497	
3.00	1735			.0552
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
Based on Type III Sum of Squares
The error term is Mean Square(Error) = 7.212E-04.

a. Uses Harmonic Mean Sample Size = 1736.663.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

Appendix D

Fiscal and Staffing Individual Five-Year Data for 12 Improvement Districts

Table D.1
Teachers Per 1000 Students in Improvement and Comparison Districts, 1995 to 2000

	N	1995-96	1996-97	1997-98	1998-99	1999-00	Average of 5 yrs	Increase 95-00	% increase
Small imp. district	1	56	55	53	63	73	60	17	30%
Small comp. districts	13	59	59	59	62	69	61	10	17%
Medium imp. district	1	61	58	59	65	68	62	7	12%
Medium comp. districts	13	58	56	57	60	65	59	7	13%
Large imp. district	1	56	61	57	62	65	60	9	16%
Large comp. districts	5	55	57	56	57	61	57	6	11%
Arkansas statewide	307	63	62	63	67	81	67	18	29%
Small imp. district	1	69	66	71	73	77	71	8	12%
Small comp. districts	13	64	63	68	70	73	67	9	14%
Medium imp. district	1	59	54	66	66	67	62	7	12%
Medium comp. districts	13	62	61	65	67	69	65	6	10%
Large imp. district	1	56	59	62	63	65	61	9	16%
Large comp. districts	13	58	58	61	63	65	61	7	13%
Louisiana statewide	66	61	60	65	66	68	64	7	11%
Small imp. district	1	66	68	68	68	69	68	3	5%
Small comp. districts	13	64	65	65	67	67	65	3	4%
Medium imp. district	1	55	56	58	61	63	59	9	16%
Medium comp. districts	9	55	56	56	59	59	57	5	8%
Large imp. district	1	60	62	60	63	63	62	3	5%
Large comp. districts	5	58	60	58	61	60	59	2	3%
New Mexico statewide	89	68	69	69	71	71	70	3	4%
Small imp. district	1	81	78	81	83	88	82	7	9%
Small comp. districts	13	72	72	73	74	76	73	4	6%
Medium imp. district	1	65	70	68	69	71	69	6	9%
Medium comp. districts	13	67	69	69	70	70	69	3	4%
Large imp. district	1	56	58	61	61	65	60	9	16%
Large comp. districts	13	62	63	64	65	67	64	5	8%
Texas statewide	1042	79	80	81	82	83	81	4	5%

Table D. 2
Administrative Staff Per 1000 Students in Improvement and Comparison Districts, 1995 to 2000

	N	1995-96	1996-97	1997-98	1998-99	1999-00	Average of 5 yrs	Increase 95-00	% increase
Small imp. district	1	9	9	9	5	6	7	-3	-34%
Small comp. districts	13	9	9	9	5	9	8	-1	-9%
Medium imp. district	1	7	7	7	5	5	6	-2	-33%
Medium comp. districts	13	9	9	9	6	8	8	-1	-14%
Large imp. district	1	12	12	12	6	11	11	-1	-7%
Large comp. districts	5	8	10	10	6	10	9	2	21%
Arkansas statewide	307	10	11	11	7	11	10	1	9%
Small imp. district	1	13	12	13	14	14	13	1	8%
Small comp. districts	13	10	9	10	11	11	10	2	17%
Medium imp. district	1	9	6	9	10	11	9	2	25%
Medium comp. districts	13	9	8	9	9	10	9	1	15%
Large imp. district	1	6	7	7	7	7	7	1	14%
Large comp. districts	13	7	7	8	8	8	8	1	15%
Louisiana statewide	66	8	8	9	9	10	9	1	15%
Small imp. district	1	19	21	20	16	22	20	2	12%
Small comp. districts	13	16	16	19	19	19	18	4	23%
Medium imp. district	1	88	30	32	14	21	37	-67	-76%
Medium comp. districts	9	23	13	14	12	16	16	-7	-30%
Large imp. district	1	9	10	12	12	12	11	3	35%
Large comp. districts	5	13	13	13	14	16	14	3	22%
New Mexico statewide	89	19	18	23	23	26	22	6	31%
Small imp. district	1	8	7	9	10	10	9	2	24%
Small comp. districts	13	9	9	10	10	10	10	1	14%
Medium imp. district	1	8	10	9	12	13	10	5	56%
Medium comp. districts	13	9	9	9	10	10	10	1	11%
Large imp. district	1	7	6	7	7	9	7	1	18%
Large comp. districts	13	7	8	8	8	9	8	1	17%
Texas statewide	1042	10	10	11	11	12	11	2	20%

Table D.3
Current Expenditures Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	4,909	4,986	4,976	5,142	5,353	5,073	444	9%
Small comp. districts	5	5,042	5,083	5,106	5,227	5,558	5,203	516	10%
Medium imp. district	1	4,087	4,268	4,297	4,195	4,626	4,295	539	13%
Medium comp. districts	13	4,342	4,379	4,414	4,568	4,678	4,476	337	8%
Large imp. district	1	4,592	4,583	4,520	4,742	4,864	4,660	273	6%
Large comp. districts	13	4,542	4,493	4,515	4,726	4,922	4,639	380	8%
Arkansas statewide	307	4,719	4,702	4,684	4,881	5,073	4,812	353	7%
Small imp. district	1	4,961	4,708	4,697	5,161	5,636	5,033	675	14%
Small comp. districts	13	4,870	4,675	4,644	5,206	5,647	5,009	776	16%
Medium imp. district	1	5,119	5,307	4,906	5,762	6,069	5,433	950	19%
Medium comp. districts	13	4,843	4,745	4,669	5,162	5,535	4,991	691	14%
Large imp. district	1	4,316	4,151	4,442	4,865	5,176	4,590	860	20%
Large comp. districts	13	4,561	4,531	4,611	5,026	5,310	4,808	749	16%
Louisiana statewide	66	4,696	4,599	4,604	5,077	5,418	4,879	722	15%
Small imp. district	1	5,591	6,114	6,487	6,611	7,071	6,375	1,479	26%
Small comp. districts	13	5,292	5,284	5,811	6,058	6,526	5,794	1,233	23%
Medium imp. district	1	4,130	4,159	4,484	4,585	4,959	4,463	829	20%
Medium comp. districts	9	4,126	4,087	4,380	4,577	4,978	4,430	852	21%
Large imp. district	1	4,433	4,375	4,685	4,843	5,339	4,735	906	20%
Large comp. districts	5	4,383	4,337	4,677	4,858	5,239	4,699	855	20%
New Mexico statewide	89	5,601	5,583	6,017	6,329	6,846	6,075	1,245	22%
Small imp. district	1	5,437	5,800	5,847	5,853	6,263	5,840	826	15%
Small comp. districts	13	5,337	5,552	5,684	5,757	5,862	5,638	526	10%
Medium imp. district	1	5,511	5,943	5,953	5,957	6,359	5,945	849	15%
Medium comp. districts	13	5,208	5,390	5,361	5,535	5,748	5,448	540	10%
Large imp. district	1	4,745	4,647	4,747	5,003	5,284	4,885	539	11%
Large comp. districts	13	5,092	5,117	5,099	5,248	5,376	5,187	284	6%
Texas statewide	1042	5,980	6,087	6,100	6,284	6,429	6,176	449	8%

Table D.4
Expenditures on Instruction Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	2,673	2,827	2,875	2,816	3,094	2,857	422	16%
Small comp. districts	13	2,783	2,813	2,756	2,830	2,897	2,816	114	4%
Medium imp. district	1	2,924	2,894	2,725	3,027	3,079	2,930	154	5%
Medium comp. districts	13	2,894	2,860	2,836	2,940	3,037	2,913	143	5%
Large imp. district	1	3,128	3,169	3,120	3,183	3,273	3,174	145	5%
Large comp. districts	5	3,122	3,180	3,146	3,194	3,399	3,208	277	9%
Arkansas statewide	307	2,984	2,962	2,860	2,969	3,081	2,971	97	3%
Small imp. district	1	2,774	2,620	2,542	2,905	3,158	2,800	384	14%
Small comp. districts	13	2,786	2,650	2,635	3,003	3,266	2,868	480	17%
Medium imp. district	1	2,894	2,852	2,727	3,311	3,458	3,049	564	19%
Medium comp. districts	13	2,778	2,679	2,660	2,984	3,197	2,860	419	15%
Large imp. district	1	2,710	2,587	2,840	3,154	3,424	2,943	714	26%
Large comp. districts	13	2,789	2,757	2,818	3,091	3,299	2,951	509	18%
Louisiana statewide	66	2,760	2,678	2,696	3,007	3,227	2,874	467	17%
Small imp. district	1	2,782	3,083	3,304	3,369	3,552	3,218	769	28%
Small comp. districts	13	2,786	2,755	3,093	3,225	3,420	3,056	634	23%
Medium imp. district	1	2,554	2,556	2,714	2,776	2,893	2,699	339	13%
Medium comp. districts	9	2,397	2,360	2,503	2,621	2,791	2,534	394	16%
Large imp. district	1	2,545	2,465	2,669	2,750	2,971	2,680	426	17%
Large comp. districts	5	2,498	2,458	2,662	2,745	2,916	2,656	418	17%
New Mexico statewide	89	2,961	2,956	3,218	3,353	3,553	3,208	592	20%
Small imp. district	1	3,430	3,597	3,729	3,672	3,938	3,673	508	15%
Small comp. districts	13	3,324	3,477	3,615	3,575	3,622	3,523	298	9%
Medium imp. district	1	3,165	3,539	3,547	3,424	3,540	3,443	375	12%
Medium comp. districts	13	3,170	3,302	3,370	3,430	3,532	3,361	363	11%
Large imp. district	1	2,672	2,634	2,779	2,942	3,097	2,825	426	16%
Large comp. districts	13	3,160	3,172	3,191	3,248	3,320	3,218	160	5%
Texas statewide	1042	3,657	3,762	3,848	3,901	3,993	3,832	336	9%

Table D.5
Percent of Expenditures on Instruction in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	65%	66%	67%	67%	67%	67%	1%
Small comp. districts	13	64%	64%	63%	62%	62%	63%	-2%
Medium imp. district	1	64%	63%	60%	64%	63%	63%	0%
Medium comp. districts	13	64%	64%	63%	62%	62%	63%	-2%
Large imp. district	1	64%	64%	63%	62%	61%	63%	-3%
Large comp. districts	5	62%	63%	62%	61%	61%	62%	-1%
Arkansas statewide	307	63%	63%	61%	61%	61%	62%	-2%
Small imp. district	1	56%	56%	54%	56%	56%	56%	0%
Small comp. districts	13	57%	57%	57%	58%	58%	57%	1%
Medium imp. district	1	57%	54%	56%	57%	57%	56%	0%
Medium comp. districts	13	58%	57%	57%	58%	58%	57%	0%
Large imp. district	1	63%	62%	64%	65%	66%	64%	3%
Large comp. districts	13	61%	61%	61%	62%	62%	61%	1%
Louisiana statewide	66	59%	58%	59%	59%	60%	59%	1%
Small imp. district	1	50%	50%	51%	51%	50%	50%	0%
Small comp. districts	13	53%	52%	53%	53%	53%	53%	0%
Medium imp. district	1	62%	61%	61%	61%	58%	61%	-3%
Medium comp. districts	9	58%	58%	57%	57%	56%	57%	-2%
Large imp. district	1	57%	56%	57%	57%	56%	57%	-2%
Large comp. districts	5	57%	57%	57%	57%	56%	57%	-1%
New Mexico statewide	89	54%	54%	54%	54%	53%	54%	-1%
Small imp. district	1	63%	62%	64%	63%	63%	63%	0%
Small comp. districts	13	62%	63%	64%	62%	62%	63%	0%
Medium imp. district	1	57%	60%	60%	57%	56%	58%	-2%
Medium comp. districts	13	61%	61%	63%	62%	62%	62%	0%
Large imp. district	1	56%	57%	59%	59%	59%	58%	2%
Large comp. districts	13	62%	62%	63%	62%	62%	62%	0%
Texas statewide	1042	62%	62%	63%	62%	62%	62%	1%

Table D.6
Expenditures on Non-Instructional Services Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	263	253	268	271	287	269	24	9%
Small comp. districts	13	289	278	335	362	352	323	63	22%
Medium imp. district	1	282	276	309	275	272	283	-10	-4%
Medium comp. districts	13	286	272	305	324	359	309	72	25%
Large imp. district	1	282	269	272	273	298	279	16	6%
Large comp. districts	5	288	268	303	313	339	302	51	18%
Arkansas statewide	307	308	293	348	366	374	338	66	21%
Small imp. district	1	467	449	462	460	463	460	-4	-1%
Small comp. districts	13	449	429	425	448	469	444	20	4%
Medium imp. district	1	356	354	353	378	362	361	6	2%
Medium comp. districts	13	423	407	400	420	439	418	16	4%
Large imp. district	1	293	269	291	294	277	285	-16	-5%
Large comp. districts	13	345	343	338	365	358	350	13	4%
Louisiana statewide	66	404	394	388	407	419	402	15	4%
Small imp. district	1	480	493	522	517	530	508	49	10%
Small comp. districts	13	296	310	321	320	356	320	59	20%
Medium imp. district	1	190	191	221	222	239	213	49	26%
Medium comp. districts	9	254	245	254	267	294	263	41	16%
Large imp. district	1	279	270	272	264	301	277	21	8%
Large comp. districts	5	265	255	252	268	285	265	20	7%
New Mexico statewide	89	303	306	316	325	351	320	48	16%
Small imp. district	1	369	342	333	335	306	337	-63	-17%
Small comp. districts	13	311	303	302	305	304	305	-7	-2%
Medium imp. district	1	364	306	261	346	362	328	-2	-1%
Medium comp. districts	13	318	299	281	301	312	302	-6	-2%
Large imp. district	1	354	318	308	293	304	315	-50	-14%
Large comp. districts	13	313	331	294	291	298	306	-15	-5%
Texas statewide	1042	346	335	326	322	334	333	-12	-4%

Table D.7
Percent of Expenditures on Non-Instructional Services in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	6%	6%	6%	6%	6%	6%	0%
Small comp. districts	13	7%	6%	8%	8%	8%	7%	1%
Medium imp. district	1	6%	6%	7%	6%	6%	6%	-1%
Medium comp. districts	13	6%	6%	7%	7%	7%	7%	1%
Large imp. district	1	6%	5%	5%	5%	6%	6%	0%
Large comp. districts	5	6%	5%	6%	6%	6%	6%	0%
Arkansas statewide	307	7%	6%	7%	7%	7%	7%	1%
Small imp. district	1	9%	10%	10%	9%	8%	9%	-1%
Small comp. districts	13	9%	9%	9%	9%	8%	9%	-1%
Medium imp. district	1	7%	7%	7%	7%	6%	7%	-1%
Medium comp. districts	13	9%	9%	9%	8%	8%	8%	-1%
Large imp. district	1	7%	6%	7%	6%	5%	6%	-1%
Large comp. districts	13	8%	8%	7%	7%	7%	7%	-1%
Louisiana statewide	66	9%	9%	9%	8%	8%	8%	-1%
Small imp. district	1	9%	8%	8%	8%	7%	8%	-1%
Small comp. districts	13	6%	6%	5%	5%	5%	5%	0%
Medium imp. district	1	5%	5%	5%	5%	5%	5%	0%
Medium comp. districts	9	6%	6%	6%	6%	6%	6%	0%
Large imp. district	1	6%	6%	6%	5%	6%	6%	-1%
Large comp. districts	5	6%	6%	5%	5%	5%	6%	-1%
New Mexico statewide	89	6%	6%	5%	5%	5%	5%	0%
Small imp. district	1	7%	6%	6%	6%	5%	6%	-2%
Small comp. districts	13	6%	6%	5%	5%	5%	5%	-1%
Medium imp. district	1	7%	5%	4%	6%	6%	6%	-1%
Medium comp. districts	13	6%	6%	5%	5%	5%	6%	-1%
Large imp. district	1	7%	7%	6%	6%	6%	6%	-2%
Large comp. districts	13	6%	6%	6%	6%	6%	6%	-1%
Texas statewide	1042	6%	6%	5%	5%	5%	5%	-1%

Table D.8
Core Expenditures Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	2,895	3,074	3,100	3,034	3,322	3,085	426	15%
Small comp. districts	13	3,067	3,105	3,050	3,144	3,228	3,119	161	5%
Medium imp. district	1	3,355	3,338	3,134	3,465	3,543	3,367	189	6%
Medium comp. districts	13	3,270	3,234	3,206	3,325	3,430	3,293	159	5%
Large imp. district	1	3,680	3,743	3,694	3,799	3,932	3,770	252	7%
Large comp. districts	5	3,608	3,659	3,631	3,699	3,946	3,708	338	9%
Arkansas statewide	307	3,295	3,277	3,175	3,297	3,431	3,295	136	4%
Small imp. district	1	3,153	3,028	2,995	3,383	3,777	3,267	623	20%
Small comp. districts	13	3,176	3,034	3,028	3,461	3,788	3,297	612	19%
Medium imp. district	1	3,289	3,272	3,089	3,729	3,901	3,456	612	19%
Medium comp. districts	13	3,158	3,062	3,025	3,387	3,661	3,259	503	16%
Large imp. district	1	3,073	2,974	3,214	3,607	3,886	3,351	813	26%
Large comp. districts	13	3,135	3,103	3,175	3,496	3,742	3,330	607	19%
Louisiana statewide	66	3,125	3,047	3,069	3,430	3,694	3,273	569	18%
Small imp. district	1	3,380	3,758	3,977	4,216	4,422	3,951	1,042	31%
Small comp. districts	13	3,355	3,335	3,777	4,054	4,263	3,757	907	27%
Medium imp. district	1	3,009	3,016	3,252	3,410	3,537	3,245	528	18%
Medium comp. districts	9	2,840	2,814	3,052	3,236	3,441	3,077	601	21%
Large imp. district	1	3,179	3,112	3,408	3,543	3,739	3,396	560	18%
Large comp. districts	5	3,041	3,016	3,323	3,476	3,648	3,301	607	20%
New Mexico statewide	89	3,513	3,518	3,898	4,135	4,363	3,885	851	24%
Small imp. district	1	3,781	3,974	4,135	4,133	4,427	4,090	646	17%
Small comp. districts	13	3,762	3,935	4,111	4,089	4,141	4,007	379	10%
Medium imp. district	1	3,701	4,108	4,234	4,058	4,203	4,061	502	14%
Medium comp. districts	13	3,598	3,746	3,844	3,936	4,068	3,838	470	13%
Large imp. district	1	3,121	3,088	3,240	3,415	3,604	3,293	483	15%
Large comp. districts	13	3,638	3,640	3,672	3,742	3,843	3,707	205	6%
Texas statewide	1042	4,021	4,133	4,228	4,310	4,417	4,222	395	10%

Table D.9
Percent of Core Expenditures in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	72%	71%	73%	73%	70%	72%	-2%
Small comp. districts	13	63%	63%	65%	67%	65%	65%	2%
Medium imp. district	1	64%	64%	66%	66%	65%	65%	1%
Medium comp. districts	5	69%	69%	70%	71%	69%	69%	0%
Large imp. district	1	60%	61%	61%	64%	63%	62%	2%
Large comp. districts	13	69%	69%	71%	72%	70%	70%	0%
Arkansas statewide	307	73%	73%	73%	74%	71%	73%	-2%
Small imp. district	1	64%	64%	64%	66%	67%	65%	3%
Small comp. districts	13	65%	65%	65%	66%	67%	66%	2%
Medium imp. district	1	64%	62%	63%	65%	64%	64%	0%
Medium comp. districts	13	65%	65%	65%	66%	66%	65%	1%
Large imp. district	1	71%	72%	72%	74%	75%	73%	4%
Large comp. districts	13	69%	69%	69%	70%	70%	69%	2%
Louisiana statewide	66	67%	66%	67%	68%	68%	67%	2%
Small imp. district	1	72%	71%	73%	73%	70%	72%	-2%
Small comp. districts	13	63%	63%	65%	67%	65%	65%	2%
Medium imp. district	1	64%	64%	66%	66%	65%	65%	1%
Medium comp. districts	9	69%	69%	70%	71%	69%	69%	0%
Large imp. district	1	60%	61%	61%	64%	63%	62%	2%
Large comp. districts	5	69%	69%	71%	72%	70%	70%	0%
New Mexico statewide	89	73%	73%	73%	74%	71%	73%	-2%
Small imp. district	1	66%	66%	68%	68%	68%	67%	2%
Small comp. districts	13	70%	71%	72%	71%	70%	71%	0%
Medium imp. district	1	68%	68%	70%	69%	69%	69%	1%
Medium comp. districts	13	69%	70%	72%	71%	71%	71%	2%
Large imp. district	1	70%	69%	71%	71%	71%	70%	1%
Large comp. districts	13	71%	71%	72%	71%	72%	71%	0%
Texas statewide	1042	67%	69%	71%	68%	66%	68%	-1%

Table D.10
Expenditures on Student Support Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	138	141	139	136	137	138	0	0%
Small comp. districts	13	164	164	166	184	192	174	28	17%
Medium imp. district	1	235	227	234	258	272	245	37	16%
Medium comp. districts	13	193	190	194	203	209	198	16	8%
Large imp. district	1	313	322	308	311	331	317	18	6%
Large comp. districts	5	245	245	240	243	259	246	14	6%
Arkansas statewide	307	160	164	166	174	187	170	28	17%
Small imp. district	1	160	154	157	189	228	178	68	43%
Small comp. districts	13	166	151	157	179	216	174	49	30%
Medium imp. district	1	181	186	159	197	205	186	24	14%
Medium comp. districts	13	171	165	158	170	193	171	21	12%
Large imp. district	1	199	197	208	211	219	207	20	10%
Large comp. districts	13	173	172	181	197	215	187	42	24%
Louisiana statewide	66	165	163	166	184	205	177	39	24%
Small imp. district	1	325	396	312	481	564	416	239	74%
Small comp. districts	13	335	327	349	442	537	398	202	60%
Medium imp. district	1	285	297	330	371	445	346	159	56%
Medium comp. districts	9	263	276	318	358	436	330	174	66%
Large imp. district	1	337	369	390	450	546	419	209	62%
Large comp. districts	5	321	334	369	423	501	390	179	56%
New Mexico statewide	89	298	311	327	402	485	364	187	63%
Small imp. district	1	172	183	188	192	206	188	34	20%
Small comp. districts	13	218	232	245	247	255	239	37	17%
Medium imp. district	1	267	299	395	379	376	343	109	41%
Medium comp. districts	13	228	240	266	290	309	267	81	35%
Large imp. district	1	224	223	215	208	234	221	11	5%
Large comp. districts	13	254	250	251	256	269	256	15	6%
Texas statewide	1042	183	187	192	205	216	197	33	18%

Table D.11
Percent of Expenditures on Student Support in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	3%	3%	3%	3%	3%	3%	0%
Small comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Medium imp. district	1	5%	5%	5%	5%	6%	5%	0%
Medium comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Large imp. district	1	6%	6%	6%	6%	6%	6%	0%
Large comp. districts	5	5%	5%	5%	5%	5%	5%	0%
Arkansas statewide	307	3%	4%	4%	4%	4%	4%	0%
Small imp. district	1	3%	3%	3%	4%	4%	4%	1%
Small comp. districts	13	3%	3%	3%	3%	4%	3%	0%
Medium imp. district	1	4%	4%	3%	3%	3%	3%	0%
Medium comp. districts	13	4%	3%	3%	3%	3%	3%	0%
Large imp. district	1	5%	5%	5%	4%	4%	5%	0%
Large comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Louisiana statewide	66	4%	4%	4%	4%	4%	4%	0%
Small imp. district	1	6%	6%	5%	7%	8%	6%	2%
Small comp. districts	13	6%	6%	6%	7%	8%	7%	2%
Medium imp. district	1	7%	7%	7%	8%	9%	8%	2%
Medium comp. districts	9	6%	7%	7%	8%	9%	7%	2%
Large imp. district	1	8%	8%	8%	9%	10%	9%	3%
Large comp. districts	5	7%	8%	8%	9%	10%	8%	2%
New Mexico statewide	89	6%	6%	6%	7%	7%	6%	2%
Small imp. district	1	3%	3%	3%	3%	3%	3%	0%
Small comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Medium imp. district	1	5%	5%	7%	6%	6%	6%	1%
Medium comp. districts	13	4%	4%	5%	5%	5%	5%	1%
Large imp. district	1	5%	5%	5%	4%	4%	5%	0%
Large comp. districts	13	5%	5%	5%	5%	5%	5%	0%
Texas statewide	1042	3%	3%	3%	3%	3%	3%	0%

Table D.12
Expenditures on Instructional Staff Support Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	85	106	85	82	90	90	5	6%
Small comp. districts	13	120	127	127	130	139	129	19	16%
Medium imp. district	1	195	218	174	181	192	192	-3	-1%
Medium comp. districts	13	184	184	176	182	184	182	0	0%
Large imp. district	1	239	252	267	305	328	278	89	37%
Large comp. districts	5	241	234	245	262	288	254	47	20%
Arkansas statewide	307	151	151	148	154	162	153	11	7%
Small imp. district	1	219	254	296	288	390	290	171	78%
Small comp. districts	13	224	233	235	280	307	256	83	37%
Medium imp. district	1	214	234	203	221	238	222	24	11%
Medium comp. districts	13	209	218	207	234	271	228	62	30%
Large imp. district	1	164	191	166	242	243	201	80	49%
Large comp. districts	13	173	175	175	208	229	192	56	32%
Louisiana statewide	66	200	205	206	239	262	222	62	31%
Small imp. district	1	273	279	361	366	307	317	33	12%
Small comp. districts	13	234	253	335	387	306	303	72	31%
Medium imp. district	1	170	163	209	263	199	201	30	18%
Medium comp. districts	9	180	179	231	257	214	212	34	19%
Large imp. district	1	297	278	349	343	222	298	-75	-25%
Large comp. districts	5	222	224	292	308	232	256	10	4%
New Mexico statewide	89	254	252	352	380	326	313	72	28%
Small imp. district	1	179	195	217	269	282	228	103	58%
Small comp. districts	13	220	226	251	267	264	245	44	20%
Medium imp. district	1	269	269	292	255	287	274	17	7%
Medium comp. districts	13	200	205	207	216	227	211	26	13%
Large imp. district	1	226	231	246	265	272	248	47	21%
Large comp. districts	13	223	218	230	238	253	233	30	14%
Texas statewide	1042	181	184	188	204	208	193	27	15%

Table D.13
Percent of Expenditures on Instructional Staff Support in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	2%	2%	2%	2%	2%	2%	0%
Small comp. districts	13	3%	3%	3%	3%	3%	3%	0%
Medium imp. district	1	4%	5%	4%	4%	4%	4%	0%
Medium comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Large imp. district	1	5%	5%	5%	6%	6%	5%	1%
Large comp. districts	5	5%	5%	5%	5%	5%	5%	0%
Arkansas statewide	307	3%	3%	3%	3%	3%	3%	0%
Small imp. district	1	4%	5%	6%	6%	7%	6%	3%
Small comp. districts	13	5%	5%	5%	5%	5%	5%	1%
Medium imp. district	1	4%	4%	4%	4%	4%	4%	0%
Medium comp. districts	13	4%	5%	4%	5%	5%	5%	1%
Large imp. district	1	4%	5%	4%	5%	5%	4%	1%
Large comp. districts	13	4%	4%	4%	4%	4%	4%	1%
Louisiana statewide	66	4%	4%	4%	5%	5%	5%	1%
Small imp. district	1	5%	5%	6%	6%	4%	5%	-1%
Small comp. districts	13	4%	5%	6%	6%	5%	5%	0%
Medium imp. district	1	4%	4%	5%	6%	4%	4%	0%
Medium comp. districts	9	4%	4%	5%	6%	4%	5%	0%
Large imp. district	1	7%	6%	7%	7%	4%	6%	-3%
Large comp. districts	5	5%	5%	6%	6%	4%	5%	-1%
New Mexico statewide	89	5%	5%	6%	6%	5%	5%	0%
Small imp. district	1	3%	3%	4%	5%	5%	4%	1%
Small comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Medium imp. district	1	5%	5%	5%	4%	5%	5%	0%
Medium comp. districts	13	4%	4%	4%	4%	4%	4%	0%
Large imp. district	1	5%	5%	5%	5%	5%	5%	0%
Large comp. districts	13	4%	4%	5%	5%	5%	4%	0%
Texas statewide	1042	3%	3%	3%	3%	3%	3%	0%

Table D.14
Expenditures on Other Support Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	33	25	38	31	74	40	41	125%
Small comp. districts	13	33	23	28	38	53	35	20	61%
Medium imp. district	1	88	89	111	104	111	101	23	26%
Medium comp. districts	13	51	54	64	67	71	61	21	41%
Large imp. district	1	106	109	109	116	131	114	26	24%
Large comp. districts	5	147	137	134	140	151	142	4	3%
Arkansas statewide	307	39	38	55	54	56	49	17	43%
Small imp. district	1	98	109	119	139	155	124	56	57%
Small comp. districts	13	71	73	79	94	105	84	34	48%
Medium imp. district	1	116	118	120	151	164	134	48	42%
Medium comp. districts	13	71	74	77	88	90	80	19	26%
Large imp. district	1	66	62	60	65	74	66	9	13%
Large comp. districts	13	78	79	78	89	108	86	30	38%
Louisiana statewide	66	71	73	75	85	96	80	25	35%
Small imp. district	1	160	168	139	130	153	150	-7	-5%
Small comp. districts	13	113	116	122	128	150	126	37	32%
Medium imp. district	1	52	55	74	66	73	64	20	39%
Medium comp. districts	9	57	58	59	63	67	61	10	17%
Large imp. district	1	45	43	42	44	49	45	4	10%
Large comp. districts	5	50	50	49	54	59	53	10	19%
New Mexico statewide	89	117	118	120	136	157	130	40	34%
Small imp. district	1	26	28	99	165	173	98	146	558%
Small comp. districts	13	27	26	155	135	144	97	117	435%
Medium imp. district	1	26	40	130	226	348	154	322	1217%
Medium comp. districts	13	25	24	130	128	148	91	123	489%
Large imp. district	1	41	35	89	124	187	95	146	357%
Large comp. districts	13	44	49	85	126	168	94	124	283%
Texas statewide	1042	40	43	208	167	181	128	141	351%

Table D.15
Percent of Expenditures on Other Support in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase. 95-99
Small imp. district	1	1%	1%	1%	1%	2%	1%	1%
Small comp. districts	13	1%	1%	1%	1%	1%	1%	0%
Medium imp. district	1	2%	2%	2%	2%	2%	2%	0%
Medium comp. districts	13	1%	1%	1%	1%	1%	1%	0%
Large imp. district	1	2%	2%	2%	2%	2%	2%	0%
Large comp. districts	5	3%	2%	2%	2%	2%	2%	0%
Arkansas statewide	307	1%	1%	1%	1%	1%	1%	0%
Small imp. district	1	2%	2%	3%	3%	3%	2%	1%
Small comp. districts	13	1%	2%	2%	2%	2%	2%	0%
Medium imp. district	1	2%	2%	2%	3%	3%	2%	0%
Medium comp. districts	13	1%	2%	2%	2%	2%	2%	0%
Large imp. district	1	2%	2%	1%	1%	1%	1%	0%
Large comp. districts	13	2%	2%	2%	2%	2%	2%	0%
Louisiana statewide	66	1%	2%	2%	2%	2%	2%	0%
Small imp. district	1	3%	3%	2%	2%	2%	2%	-1%
Small comp. districts	13	2%	2%	2%	2%	2%	2%	0%
Medium imp. district	1	1%	1%	2%	1%	1%	1%	0%
Medium comp. districts	9	1%	1%	1%	1%	1%	1%	0%
Large imp. district	1	1%	1%	1%	1%	1%	1%	0%
Large comp. districts	5	1%	1%	1%	1%	1%	1%	0%
New Mexico statewide	89	2%	2%	2%	2%	2%	2%	0%
Small imp. district	1	0%	0%	2%	3%	3%	2%	2%
Small comp. districts	13	1%	1%	3%	2%	2%	2%	2%
Medium imp. district	1	0%	1%	2%	4%	5%	3%	5%
Medium comp. districts	13	0%	0%	2%	2%	3%	2%	2%
Large imp. district	1	1%	1%	2%	2%	4%	2%	3%
Large comp. districts	13	1%	1%	2%	2%	3%	2%	2%
Texas statewide	1042	1%	1%	3%	3%	3%	2%	2%

Table D.16
Total Revenue Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	4,557	4,547	4,963	5,148	5,512	4,945	956	21%
Small comp. districts	13	4,796	4,773	4,972	5,284	5,419	5,049	623	13%
Medium imp. district	1	4,482	4,471	4,435	5,167	5,230	4,757	748	17%
Medium comp. districts	13	4,786	4,820	5,026	5,256	5,507	5,079	721	15%
Large imp. district	1	4,859	5,242	5,439	5,520	5,776	5,367	916	19%
Large comp. districts	5	5,490	5,549	5,735	5,910	6,354	5,808	864	16%
Arkansas statewide	307	4,975	5,051	5,232	5,600	5,790	5,330	815	16%
Small imp. district	1	5,272	5,126	5,284	5,758	6,217	5,531	945	18%
Small comp. districts	13	5,188	5,086	5,150	5,923	6,202	5,510	1,014	20%
Medium imp. district	1	6,096	6,207	5,745	6,628	6,629	6,261	533	9%
Medium comp. districts	13	5,365	5,429	5,248	5,909	6,108	5,612	744	14%
Large imp. district	1	5,025	4,840	5,177	5,526	5,641	5,242	616	12%
Large comp. districts	13	5,181	5,118	5,212	5,672	5,951	5,427	769	15%
Louisiana statewide	66	5,180	5,135	5,180	5,758	6,014	5,454	834	16%
Small imp. district	1	6,558	7,177	7,229	7,856	8,402	7,445	1,844	28%
Small comp. districts	13	6,846	7,020	6,479	7,736	7,876	7,191	1,030	15%
Medium imp. district	1	4,639	4,733	4,774	4,971	5,381	4,899	742	16%
Medium comp. districts	9	5,068	5,149	4,940	5,241	5,586	5,197	519	10%
Large imp. district	1	5,462	5,461	5,348	5,492	6,081	5,569	619	11%
Large comp. districts	5	5,456	5,600	5,396	5,598	6,016	5,613	560	10%
New Mexico statewide	89	6,985	7,171	6,765	7,589	8,107	7,323	1,121	16%
Small imp. district	1	6,137	6,839	6,869	6,612	6,984	6,688	847	14%
Small comp. districts	13	6,205	6,506	6,711	6,745	6,600	6,553	395	6%
Medium imp. district	1	5,869	6,839	6,995	6,414	6,628	6,549	759	13%
Medium comp. districts	13	5,882	6,153	6,249	6,245	6,771	6,260	889	15%
Large imp. district	1	4,503	4,641	5,314	5,846	6,118	5,285	1,615	36%
Large comp. districts	13	5,808	5,972	6,059	6,164	6,329	6,066	522	9%
Texas statewide	1042	7,671	7,786	7,635	7,766	7,862	7,744	191	2%

Table D. 17
Local Revenue Per Pupil in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99	% increase
Small imp. district	1	956	1,013	1,220	1,287	1,423	1,180	467	49%
Small comp. districts	13	1,143	1,171	1,230	1,362	1,414	1,264	271	24%
Medium imp. district	1	1,256	1,273	1,147	1,694	1,648	1,404	391	31%
Medium comp. districts	13	1,333	1,459	1,505	1,586	1,712	1,519	380	28%
Large imp. district	1	2,022	2,379	2,387	2,372	2,452	2,322	431	21%
Large comp. districts	5	2,253	2,413	2,554	2,553	2,757	2,506	504	22%
Arkansas statewide	307	1,287	1,384	1,406	1,563	1,673	1,463	386	30%
Small imp. district	1	1,196	1,195	1,228	1,295	1,347	1,252	150	13%
Small comp. districts	13	1,328	1,360	1,416	1,741	1,784	1,526	456	34%
Medium imp. district	1	3,285	3,524	3,409	3,829	3,766	3,563	481	15%
Medium comp. districts	13	1,744	1,893	1,819	2,024	2,028	1,902	283	16%
Large imp. district	1	1,983	2,014	2,250	2,418	2,475	2,228	493	25%
Large comp. districts	13	1,901	1,958	2,020	2,215	2,304	2,080	403	21%
Louisiana statewide	66	1,610	1,682	1,735	1,932	1,991	1,790	381	24%
Small imp. district	1	491	577	650	860	968	709	477	97%
Small comp. districts	13	872	906	758	922	794	850	-78	-9%
Medium imp. district	1	349	383	411	446	454	409	105	30%
Medium comp. districts	9	712	792	703	734	704	729	-9	-1%
Large imp. district	1	720	782	698	783	696	736	-23	-3%
Large comp. districts	5	779	879	816	852	804	826	26	3%
New Mexico statewide	89	842	975	827	943	946	907	104	12%
Small imp. district	1	1,584	1,548	1,666	1,495	1,485	1,555	-99	-6%
Small comp. districts	13	2,447	2,341	2,579	2,398	2,390	2,431	-57	-2%
Medium imp. district	1	1,666	2,015	2,428	1,946	2,021	2,015	355	21%
Medium comp. districts	13	2,405	2,484	2,530	2,442	2,970	2,566	564	23%
Large imp. district	1	2,684	2,629	2,733	2,627	2,764	2,688	80	3%
Large comp. districts	13	2,687	2,705	2,834	2,806	3,030	2,812	343	13%
Texas statewide	1042	3,792	3,588	3,519	3,515	3,713	3,625	-79	-2%

Table D.18
Local Percent of Total Revenue in Improvement and Comparison Districts, 1994 to 1999

	N	1994-95	1995-96	1996-97	1997-98	1998-99	Average of 5 yrs	Increase 95-99
Small imp. district	1	21%	22%	25%	25%	26%	24%	5%
Small comp. districts	13	24%	25%	25%	26%	26%	25%	2%
Medium imp. district	1	28%	28%	26%	33%	32%	29%	3%
Medium comp. districts	13	28%	30%	30%	30%	31%	30%	3%
Large imp. district	1	42%	45%	44%	43%	42%	43%	1%
Large comp. districts	5	41%	43%	44%	43%	43%	43%	2%
Arkansas statewide	307	26%	27%	27%	28%	29%	27%	3%
Small imp. district	1	23%	23%	23%	22%	22%	23%	-1%
Small comp. districts	13	25%	26%	26%	27%	27%	26%	3%
Medium imp. district	1	54%	57%	59%	58%	57%	57%	3%
Medium comp. districts	13	31%	33%	33%	33%	32%	32%	1%
Large imp. district	1	39%	42%	43%	44%	44%	42%	4%
Large comp. districts	13	36%	38%	38%	39%	38%	38%	3%
Louisiana statewide	66	30%	32%	32%	32%	32%	32%	2%
Small imp. district	1	7%	8%	9%	11%	12%	9%	4%
Small comp. districts	13	12%	13%	11%	12%	10%	12%	-2%
Medium imp. district	1	8%	8%	9%	9%	8%	8%	1%
Medium comp. districts	9	14%	15%	14%	14%	13%	14%	-1%
Large imp. district	1	13%	14%	13%	14%	11%	13%	-2%
Large comp. districts	5	14%	16%	15%	15%	13%	15%	-1%
New Mexico statewide	89	12%	13%	12%	12%	12%	12%	0%
Small imp. district	1	26%	23%	24%	23%	21%	23%	-5%
Small comp. districts	13	39%	36%	38%	35%	36%	37%	-3%
Medium imp. district	1	28%	29%	35%	30%	30%	31%	2%
Medium comp. districts	13	41%	40%	40%	38%	40%	40%	0%
Large imp. district	1	60%	57%	51%	45%	45%	52%	-14%
Large comp. districts	13	47%	46%	47%	46%	48%	46%	1%
Texas statewide	1042	44%	42%	43%	41%	43%	42%	-1%

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